FOR POSTAGE RATES SEE FRONTISPIECE

No careless talk—"TripleX" is genuine

THE SPHERE, AUGUST 10, 1940
With which is incorporated "BLACK & WHITE." 1/-

THE SPHERE

Vol. CLXII No. 2116 WITH WHICH IS INCORPORATED THE GRAPHIC AUGUST 10 1940

EVERY PHASE OF THE WAR ACCURATELY PICTURED AND DESCRIBED

Bulmer's
CHAMPAGNE CIDER
MADE BY THE AUTHENTIC CHAMPAGNE PROCESS
BY APPOINTMENT TO THE LATE KING GEORGE V
Obtainable at all the best Hotels and Restaurants
H. P. Bulmer & Co., Ltd., HEREFORD, ENGLAND

KING SIX CIGARS
MADE BY J. R. FREEMAN & SON, LTD. · MAKERS OF FINE CIGARS SINCE 1839

Grant's Scotch Whisky
"FAMOUS FOR HALF A CENTURY"

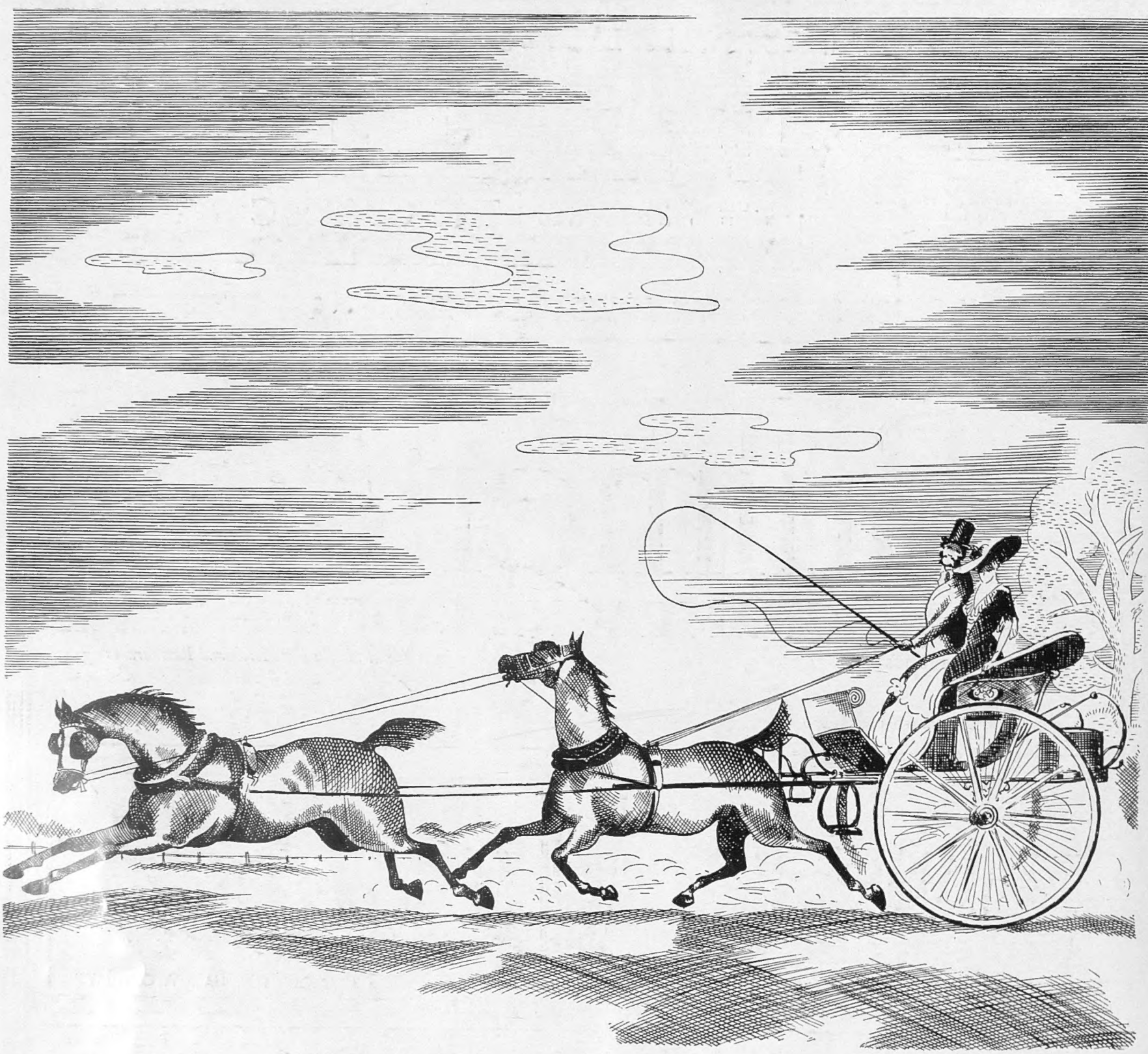
THE ARISTOCRAT OF CIGARETTES
DE RESZKE —of course!

THE "ARETHUSA" IS STILL HELPING POOR BOYS TO BECOME GOOD SAILORS
Many "Arethusa" boys are now officers in the Royal and Merchant Navies
IMMEDIATE FINANCIAL HELP VITALLY NEEDED
THE SHAFTESBURY HOMES & "ARETHUSA" TRAINING SHIP
(FOUNDED 1843)
164, SHAFTESBURY AVENUE, LONDON, W.C.2
President: H.R.H. THE DUKE OF KENT, K.G.

For sweet breath and pearly teeth— use
Euthymol TOOTH PASTE
LARGE TUBE 1/3 FROM ALL CHEMISTS

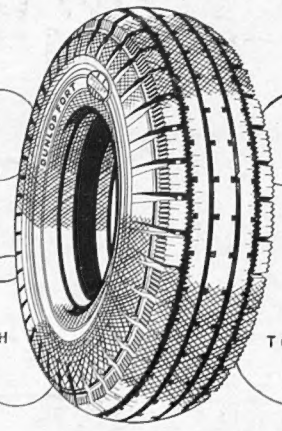
MOTOR UNION INSURANCE CO. LTD.
All classes of insurance transacted
10, ST. JAMES'S STREET, LONDON, S.W.1
MOTOR POLICIES

PRICE ONE SHILLING
REGISTERED AS A NEWSPAPER FOR TRANSMISSION IN THE UNITED KINGDOM
Office: 32-34, St. Bride Street, London, E.C.4.
For Conditions of Sale and Supply of The Sphere *see bottom of last page of text.*



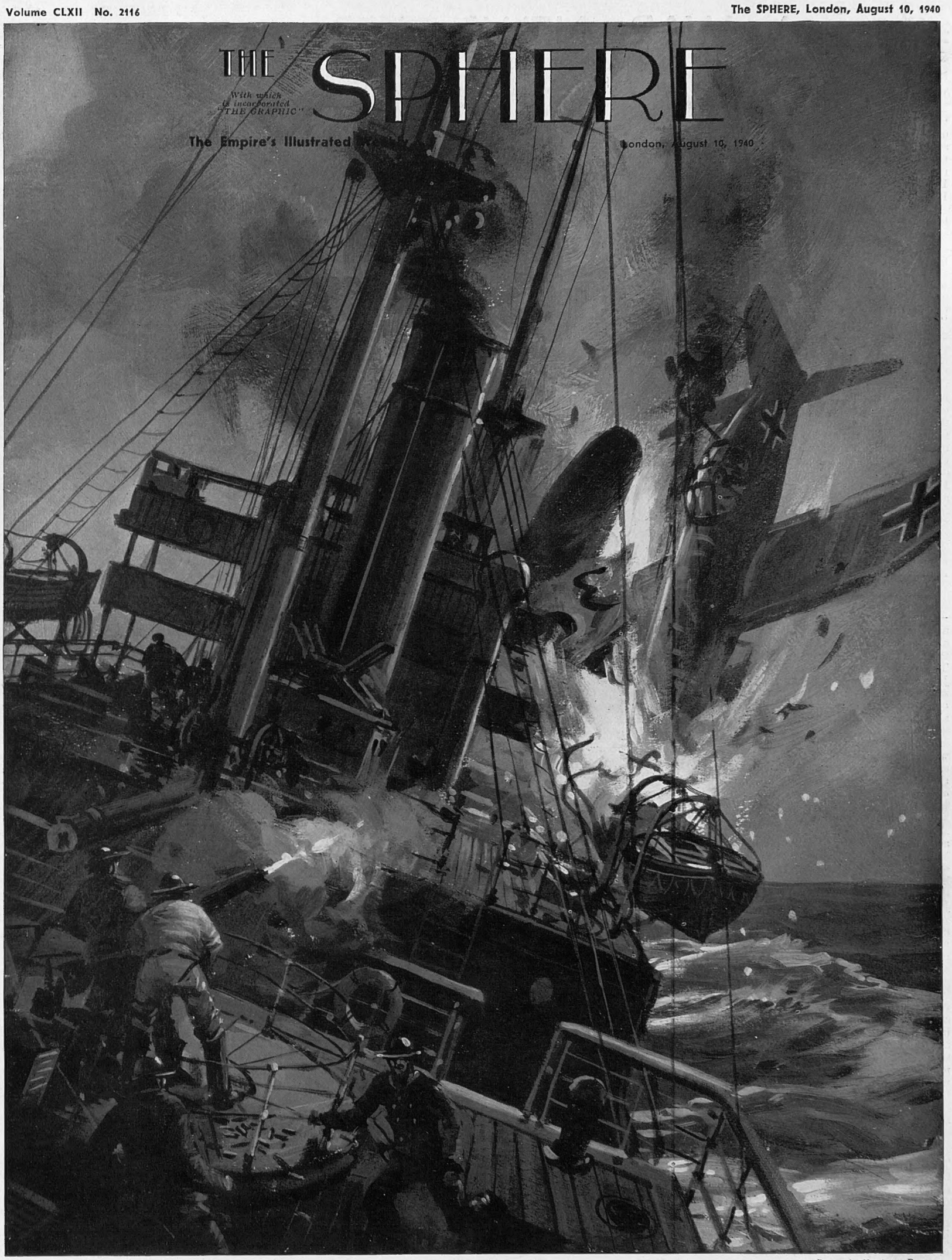
A hundred odd years ago, the bucks, beaux and "bloods" of the Regency period were wont to go the pace in gig, curricle and tilbury. Their passion for speed reached its climax in the high tandem gig known as "The Suicide". To-day immensely greater speed is achieved with perfect safety, thanks to the latest evolution of the DUNLOP tyre.

Dunlop Tyres



WITH TEETH TO BITE THE ROAD

THE SPHERE
With which is incorporated "THE GRAPHIC"
The Empire's Illustrated [illegible]
London, August 10, 1940



Drawn by Montague Dawson

THE LITTLE SHIPS DEFEAT GERMAN SEA-RAIDERS

Brought Down with One Machine Gun, a German Raider Falls on the Deck of the "Highlander"

Since the trawlers, the minesweepers, and other small craft have been armed, they have been giving an increasingly good account of themselves. The gunners have learnt to withhold their fire until the crucial moment arrives; it requires nerve to remain calm while a spray of enemy bullets is falling around, but the fact remains that crack enemy sea-raiders are being brought down by well-timed and well-aimed machine-gun fire from the decks of the attacked vessels. In many cases these are quite small. Last week the *Highlander* of Aberdeen came into port with part of a Heinkel 115 bomber lying across her deck and bridge. It was around midnight when the sound of a plane was heard. A spray of lead soon proclaimed her to be an enemy. George Anderson, the twenty-three-year-old gunner, and Laurie Halcrow, the young Shetland steward, had already raced to their stations. They bent around the one machine-gun and waited. The bombs missed, but the ship was raked by machine-gun fire. The *Highlander's* gun hit the enemy plane, which crashed into the sea a hundred yards astern. A second enemy plane appeared. After circling the ship, it came right into Anderson's sights. The machine lurched and crashed on to the *Highlander*, part of it falling on to the poop, where it remained fixed

Postage—Inland, 2d.; Canada and Newfoundland, 1½d.; Elsewhere Abroad, 2d.

A WAR NEWSLETTER—No. XLIX

32–34, ST. BRIDE STREET, E.C.4

TWO SIGNIFICANT POINTERS.

—From the uncertainties of war two facts of great significance seem to have emerged clearly. Both may influence to our advantage Hitler's policy in conducting the war against Britain. First, it seems now clear that Hitler himself gives credence (or partial credence) to the statistics presented to him by his naval and air chiefs of the effect of the intensified Nazi campaign against our sea-borne supplies. The fantastic figures broadcast of tonnage sunk weekly by Nazi attacks have proved sauce for the goose as well as for the ganders. It is possible for us to assert that Hitler genuinely believes that "Britain cannot long stand such crippling losses without being forced to capitulate from starvation and lack of material." And secondly he genuinely believes that Britain is disrupted, that the nation is still uninformed as to his peace offer, and that, if it *were* informed of those generous terms, a majority of the nation would leap at the chance of peace and would rise up to put Mosley in Mr. Churchill's place, and to satisfy the other trifling conditions which would ensure to us a measure of survival in Hitler's new order. These pointers—and I think there are reasonable grounds for regarding them as facts—are the most heartening indications which have come through to us for a long time. They account in some degree for the holding-up of the final destruction of Britain by a lightning stroke.

JAPAN SEES A CHANCE.

—The necessary diplomatic formalities and exchanges neither obscure nor clarify the issue in the Far East, as the average uninformed Briton sees it. To most of us the essence of the Japanese acts of aggression and brutality appears to be part of the old, old game of Hitlerism. He needs a "neutral" ally to peg down as large a part of our fleet as possible. Japan, ever on the look-out for a coup in the East, is a willing tool. The "spy net-work" was as good a pretext as any. But for the uncertainties of the reactions of the U.S. and the U.S.S.R., Hitler would recommend the whole hog—the forcing of Britain to take action by a show of naval force. But, to Japan as well as to the Nazis, there are "imponderables." It is not to be supposed that Britain and the U.S. have had no exchanges of views in their individual policies of countering Japanese moves in the Far East, and Hitler and Konoye alike must feel uncertain to what lengths they can go without throwing Britain and America into a closer unity of purpose and action. Britain has long been fair game for blackmailers and tail-twisters in the Far East, and caution and temperate words, humiliating compromise and diplomatic defeats, have been the inevitable and lamentable result, damaging to our prestige and puzzling to our friends and admirers. But the blackmailer never holds all the trumps. He must always fear a sudden setback, for his trade is built on bluff and conducted in the dark. There are some high cards still unaccounted for in the pack.

CAROL OF RUMANIA.—

This surely is the most tragic figure on the boards to-day. Beside him Leopold, in his prison and in his humiliation, is hardly noticed. And the spotlight has shifted from Pétain, twisting the chains that fetter him in a betrayed, disrupted, broken France, suspect alike to his masters and to his enslaved and humiliated countrymen. It is Carol's day of hell. For many years the fierce light has beaten on his rocking throne. The man himself has been dissected in public in the world's press. He has been scorned, derided, praised, flattered, spurned, and boosted. His good qualities have been lauded and denied. To save his throne and a remnant of his kingdom, he has crossed and double-crossed like a hunted hare, betrayed his friends, contradicted his pledges, disowned his convictions, sacrificed every loyalty that marks a white man; and, whatever the end be, his *fate* is certain,

THE MINESWEEPERS' CHEVRONS OF HONOUR: The funnels of our minesweepers have now become scoreboards; they are being decorated with service chevrons (familiar from the last war) to denote the number of mines they have destroyed. Here the crew of the *Cordelia* (Captain A. Hales) watch the recording artist at work on their fifth chevron. One minesweeper has earned so many chevrons that it will soon be needing another funnel!

His name will smell rank in history—a king among the rats, a puppet prince, a cad in a crown. Alas! poor Carol.

WAR-HOUSE IN ORDER.—

It is an ineradicable trait in the British national character that in war-time the War Office should be the principal Aunt Sally of criticism. Napoleon's grand army—as he proudly insisted—was an army of old grumblers. It is keenness to be efficient that is the chief source of grumbling, and in war-time a huge proportion of a nation are "servants of the War House." Grumbling is the *mot juste*. Grousing has a smack of defeatism and Bolshevism. To grumble is the soldier's *métier* and the growl is the mastiff's mode of self-expression. The lion has wings and a growl that amounts to a roar. That fact does not imply that the War Office is to-day, or ever can be, a perfectly organised machine. Every war is a struggle of amateurs with improvised weapons conducted in a smoke-filled cellar. Our intelligence reports strong evidence that Hitler will attack at A and X at a given time. All arrangements are made to meet the attack then and there. It does not come off. "The War Office again!" say the old grumblers, as they shift from key point to key point and are trained to meet this menace and that. That is the excuse (and a just one) both for the War Office and for the grumblers. Nevertheless, Army chiefs so preoccupied have little or no opportunity to see the wood for the trees. In war hideous waste is inevitable, and the waste and overlapping in the War Office effort and organisation must be as great as (or greater than) that of any other department. When the War Office itself admits such a probability, it is a sign that it is nearing the highest point of perfection that a Service department in the fog of war can attain to. Hence our welcome for the new standing committee on Army Reform.

"IF THEY'D LISTENED TO FOCH."

—A correspondent from Boston who had been re-reading Liddell-Hart's *Foch*, referred to the eerie feeling induced by considering how Foch's prophecies of doom for France if the Rhine were "handed back" to Germany by the treaty makers have been terribly and exactly fulfilled twenty years after. My correspondent quotes what Foch said about the vital importance of the Rhine as the natural barrier between German aggression and a weakened France, and what Moltke had said on the same subject in 1870–1. Certainly Foch has been proved terribly right; but Foch was in his arguments banking on a France very different from the France of 1939. There were giants in his days. There were pigmies at the head in 1940. It is questionable whether the Rhine would in 1940 have held back German aggression a week longer than did the existing barriers of, say, the Meuse, given a France in the moral condition extant in 1940. What a Rhine frontier would certainly have done would have been to have increased the dangerous complacency induced by belief in France's safety by purely defensive measures and policy, and as sure as Fate one or two of the Rhine bridges would have fallen to the enemy's inrush. Britain, too, has her "Rhine frontier," a wider, nobler ribbon of water. It would avail us no more that the Meuse, if Britain to herself did not prove true, if Britain had crooks in her Government and Quislings among her people, widely entrenched and dispersed.

THE WEAPON OF SILENCE.

—There is only one King of kings. The supreme master of human beings is yet to be born and established. Of the two aspirants to-day Mussolini must bow and mow before several overriding authorities and even Hitler himself, that victorious dictator, must still pay the most careful deference to more than one master. It is stimulating to read, as we can read, between the lines of his policy in respect of the Balkans. The Sphinx-like attitude of the U.S.S.R. requires from him a constant deferring to what may be the will of Russia. It is clear that the conversations with the Balkan statesmen were nothing but a series of moves on the diplomatic chess-board made with infinite precaution in a fog of uncertainty as to how the master chess-player from Russia would react to each tentative pawn movement. We learn from these negotiations another lesson beside the age-old and obvious lesson that no man can claim to be his own master—and that is the supreme value of silence in modern conditions of warfare. Time and again we have humbly urged that British statesmen should take a leaf from the Soviet book of diplomacy and present to Hitler a more Sphinx-like face. The Germans despise the Russian war machine as contemptuously as they despise the Italian. In the Finnish war they had good proof that their contempt was justified. Yet—despite the recent proofs of the rottenness of the Soviet war machine—the fear of what Russia may do quite clearly clips Hitler's wings and causes him to hesitate time and again. His new order for Europe halts and stutters because, alone of the nations of Europe, the U.S.S.R. has appreciated the supreme value of silence in a war in which words have been given an importance equal to, or even greater than, actions.

PAYING FOR WAR AND PEACE.

—Since taxation in any form has always been unpopular, I suppose it is true that no form of it could be devised which would be accepted by a substantial majority of taxpayers as sound, just and effective. Yet to-day in our crisis we are nearer to general approval of the most severe form of taxation than we have ever been. Never before in our history have we been brought so near to unanimity on the vexed question. Never before have we so substantially voiced the opinion that taxation must be spread justly to catch every income, must take from all a big proportion of what they earn by their labours or enjoy by inheritance. But there is another substantial voice now raised—for simplicity in the methods of taxation. Those who comprehend the whole problem of taxation are few. Those who are necessary partners in any scheme of national taxation are many, the whole income-owning population. We are easily knocked off the pedestal of our theories. We have only to be told that the problem is too intricate for us to understand. Yet I could wish that among the Government spokesmen, who come to the microphone to warn and advise us and to clarify for us so much that is inexplicable in the technique of Government in peace and war, one clear-headed speaker might be found who would tell us why the required results cannot be obtained by a single percentage tax at the source on all incomes above a fixed figure.

B.B.C.—POPULAR FEATURES.

—As I am sometimes a critic of the B.B.C., I owe it to them in justice to admit that a majority of the readers of the "Newsletter," who wrote to me (and they were many) on the question of Mr. Gardner's much-discussed air-fight broadcast, wrote strongly in favour of it. I judge that 60 per cent. were in favour and 40 per cent. of the contrary opinion. Of those in favour, at least half expressed their opinions in anonymous and scurrilous terms, so that the minority is entitled to feel that the canvass did not settle the larger question of what is and what is not good taste. But the B.B.C. is (from this miniature investigation into the trend of public opinion) quite entitled to deduce that its programmes and policy are approved by a majority of its listeners and presumably by a majority of a nation.

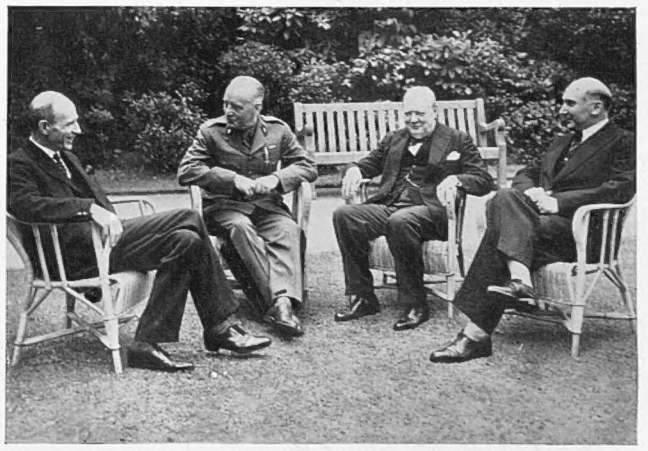
THE OLD STAGER

BRITAIN AND POLAND AGREE

The Signing of the New Agreement; the Queen on the North-East Coast; the New Member of the War Cabinet

THE OUTSTANDING POLITICAL FIGURE OF THE DAY: By his inclusion in the War Cabinet a seal has been set on the work of Lord Beaverbrook, most dynamic of war-time Ministers. At the age of sixty-one he has galvanised the aircraft industry to such an extent that our production is now on a par with that of the Germans, and increasing fast. His inclusion now brings the War Cabinet up to six, although rumour has it that the number may not stay at this figure

THE ANGLO-POLISH AGREEMENT SIGNED AT No. 10, DOWNING STREET: An important military agreement has just been concluded between Poland and Great Britain, whereby the principles on which the armed forces of Poland will be organised for co-operation with the British forces were defined. The agreement was signed by Mr. Winston Churchill and Lord Halifax on behalf of Britain, and by General Sikorski and M. Zaleski on behalf of Poland. This picture was taken immediately after the signing of the Agreement; it shows the leading statesmen of the two countries going out into the garden of No. 10, Downing Street, to sit for the photographers. Mr. Churchill and General Sikorski, the two Prime Ministers, lead the way; behind them come M. Zaleski, Polish Foreign Minister (left), and Lord Halifax, British Foreign Minister. Behind them again are Mr. Attlee, Lord Privy Seal (on left), and Count Raczynski, the Polish Ambassador in London



AFTER THE SIGNING OF THE ANGLO-POLISH AGREEMENT: LORD HALIFAX, FOREIGN SECRETARY; GENERAL SIKORSKI, POLISH PREMIER; MR. WINSTON CHURCHILL; AND M. ZALESKI, POLISH FOREIGN MINISTER

THE QUEEN IN ONE OF THE DANGER AREAS ON THE NORTH-EAST COAST: The King and Queen have just visited the North-East coast of Britain and inspected the defences there; they have also inspected damage caused in recent air raids and toured an aircraft factory. During their visit they met Mrs. Cardwell, the woman who captured a German single-handed, and presented her with the Medal of the Order of the British Empire. Here the Queen is seen at an exposed point on the coast, chatting to workmen engaged on defence measures

LORD GORT AT THE MICROPHONE: The newly appointed Inspector-General to the Forces broadcast to the Nation during the B.B.C. evening service last Sunday. His address was a fine effort, during the course of which he made reference to the "savagery of the total war" which he witnessed during the invasion of Belgium and France

BOMBER COMMAND

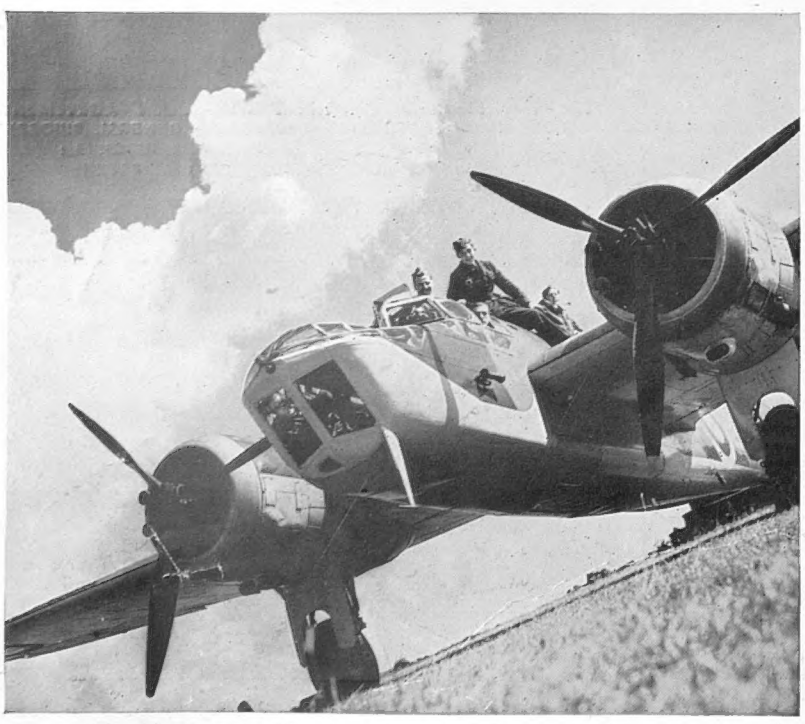
The Work of the Raiders of the R.A.F. Over Germany

PREPARING TO MAKE A BOMBING ATTACK: After being "briefed," pilots and navigators lay out their courses with the aid of rulers, dividers, and "course and distance" calculators. Note the bubble-sextant (now in fairly general use) on the nearest corner of the map

ON THE WAY: The navigator at work in a British bomber: On the way over the course must be checked and re-checked so that place and time coincide exactly

THE BOMBER-PILOTS GET THEIR ORDERS: A typical scene in the pilots' room, where pilots are "briefed" by the Squadron-Commander for the night's work. It is here that the air crews are told off for the various targets and time-tables are organised and co-ordinated by the aircraft captains

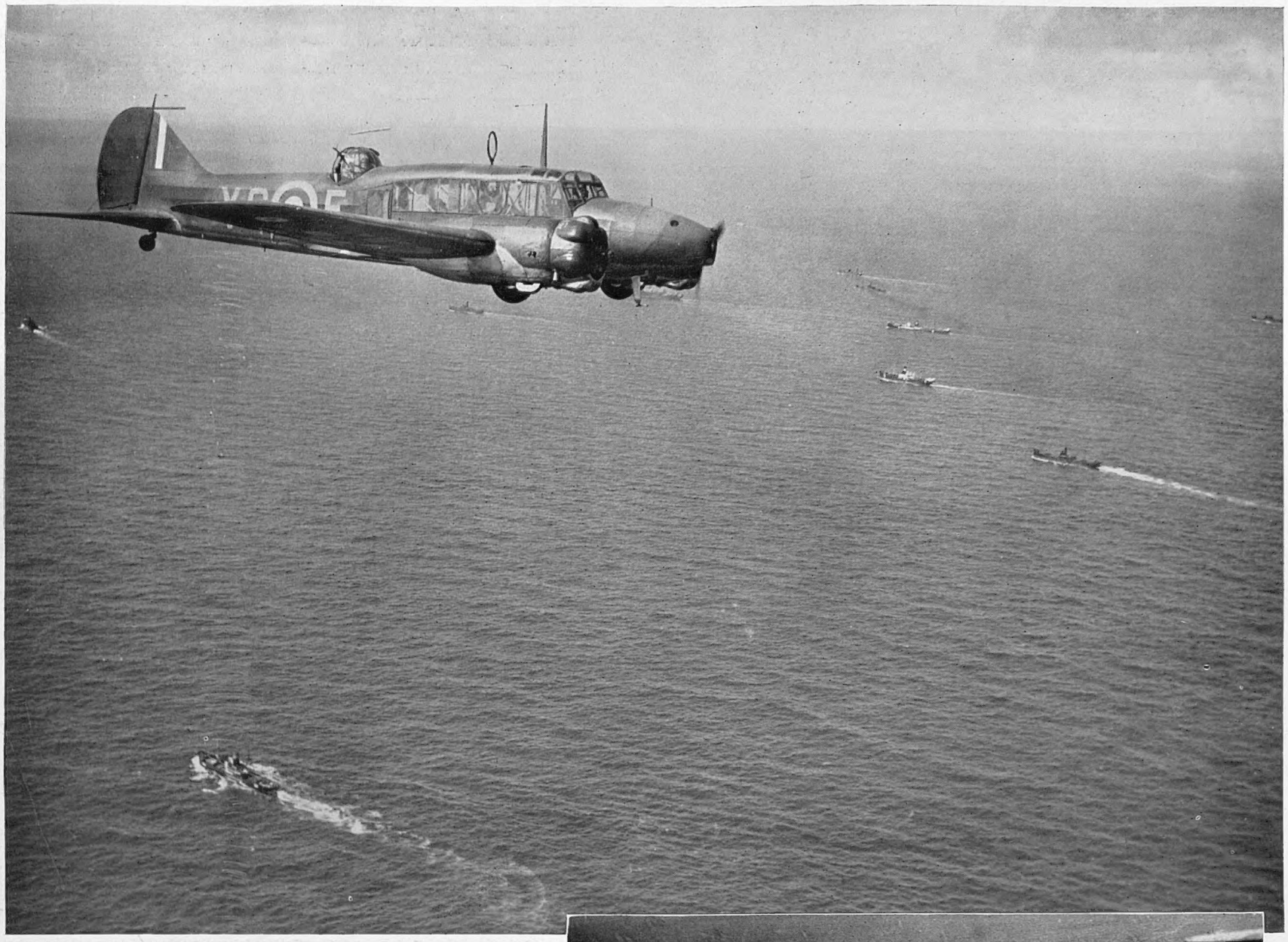
PREPARING THE AIRCRAFT: Whilst pilots and crews are busy preparing their courses the aircraft itself is being made ready. Bombs are loaded, gun turrets rearmed, and the engines are given a final turn-over



ALL READY TO SET OFF: The aircraft has been finally overhauled, the crew have received their detailed instructions—and all is now ready for the take-off

AND THEN—BACK FROM A GOOD JOB OF WORK: The crew of the bomber return by night, after a successful raid on Nazi objectives

At various times during the night and day the bombers of the R.A.F. leave their bases in Britain for raids on military objectives in enemy territory where, despite intense anti-aircraft fire and intercepting enemy fighter planes, our machines usually manage to drop their "pills" on their targets. These pictures show the manner in which the pilots and navigators receive their "briefs" and how the aircraft are prepared before the take-off. So exact has British navigation become that the time of arrival over the target—sometimes 700 miles distant—is often within two minutes of the time previously estimated!



THE COASTAL COMMAND ON ESCORT DUTY: Two pictures taken in the North Atlantic with an Ulster Squadron of the R.A.F. Coastal Command. High overhead a relief Anson aircraft takes over the work of escort and circles round the ships to make sure that all is well

COASTAL COMMAND

The Work of the R.A.F. with British Convoys

THE REWARD OF VALOUR: Sergeant Gamble receives the Distinguished Flying Medal from Air Marshal Sir Charles Portal

On an aerodrome in the Midlands, Air Marshal Sir C. F. A. Portal, Commanding in Chief, Bomber Command, recently invested fifteen R.A.F. Sergeants with the D.F.M. One of the airmen decorated, Sergeant Gamble, was wheeled on to the parade ground in an invalid chair. Of him the citation stated: "He was an air gunner in an aircraft which was attacked by a formation of Heinkel 113's. His aircraft was damaged and Sergeant Gamble himself was wounded in both legs, but he continued to use his gun with great skill, and until inter-communication was shattered he described accurately to his pilot the tactics of the enemy fighters."

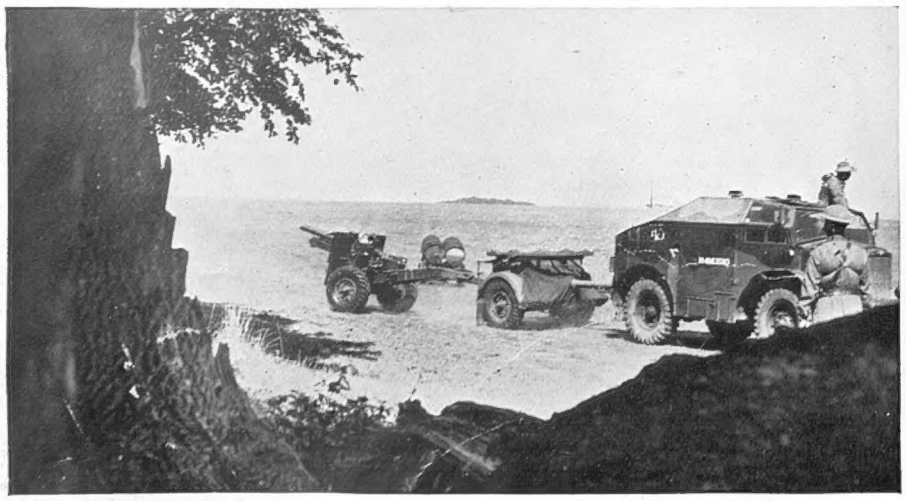
WELL OUT IN THE ATLANTIC: The ships of the convoy steam ahead in safety, thanks to the vigilance of the Navy and of the Royal Air Force

PREPARATIONS for BRITA

Some Scenes which Illustrate the Defensive Measures now

NAVAL GUNS have been mounted round the shores and are manned day and night against the possibility of invasion. This picture shows the scene of preparedness in a Battery Observation Post during an Exercise in the Western Command. Telescopes, rangefinders, telephones and other instruments play their part; around the walls of the Post are identification charts for aircraft

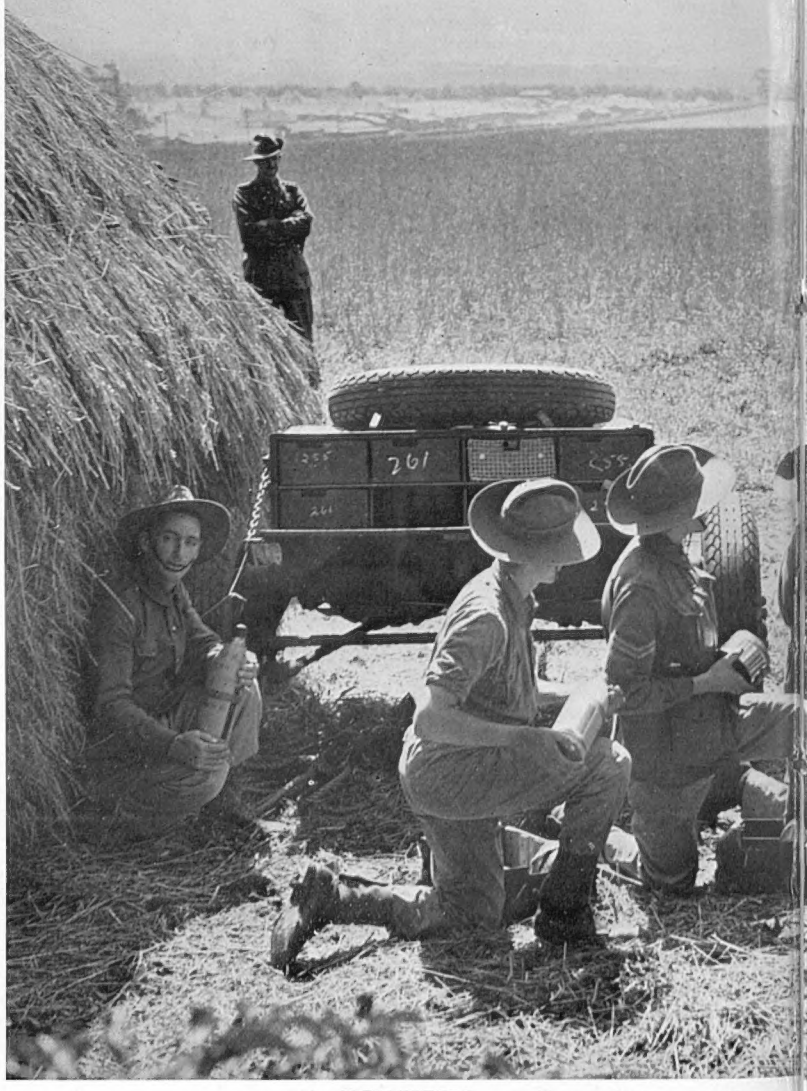
ROUNDING UP PARACHUTISTS: Royal Army Service Corps troops are here demonstrating the speed with which enemy parachutists will be dealt if they attempt a landing in this country. On the sounding of the alarm the troops rush to their light lorries for rapid conveyance to the scene of the landing, to round up and capture the invaders



ARTILLERY TRAINING: 25-pdrs. of the Australian Field Artillery passing through open country. The Australians are now undergoing intensive training in this type of warfare

ON THE MARCH—A BATTALION OF AUSTRALIAN

Throughout the countryside, scenes like the above are being witnessed daily. The many thousands of troops now under arms are being trained under actual war-time conditions, and are quickly learning the lessons of the invasion of the



HOWITZERS—A 4·5 HOWITZER, MANNED BY

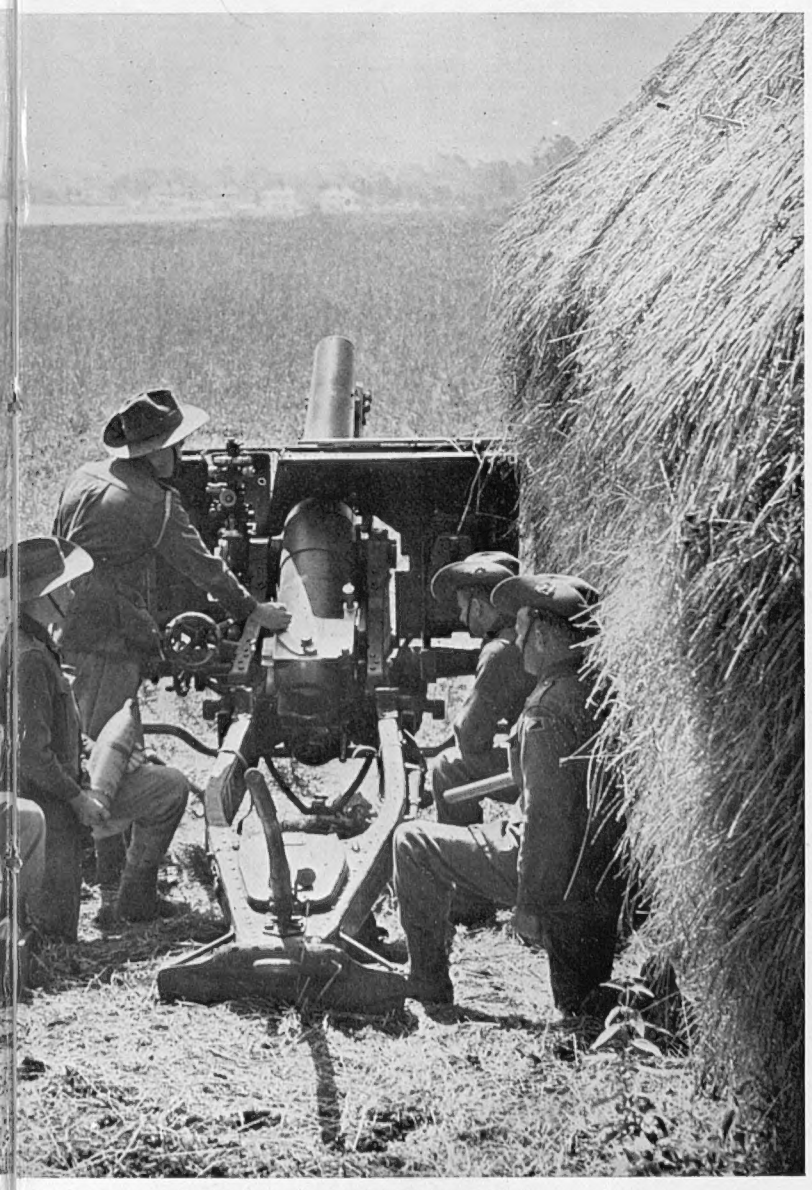
"Compared with six weeks ago," said a corps commander of the Northern Army, "I am feeling comfortably happy. Every additional week we are given

N'S DEFENCE CONTINUE

being taken to Guard Against the Landing of the Enemy

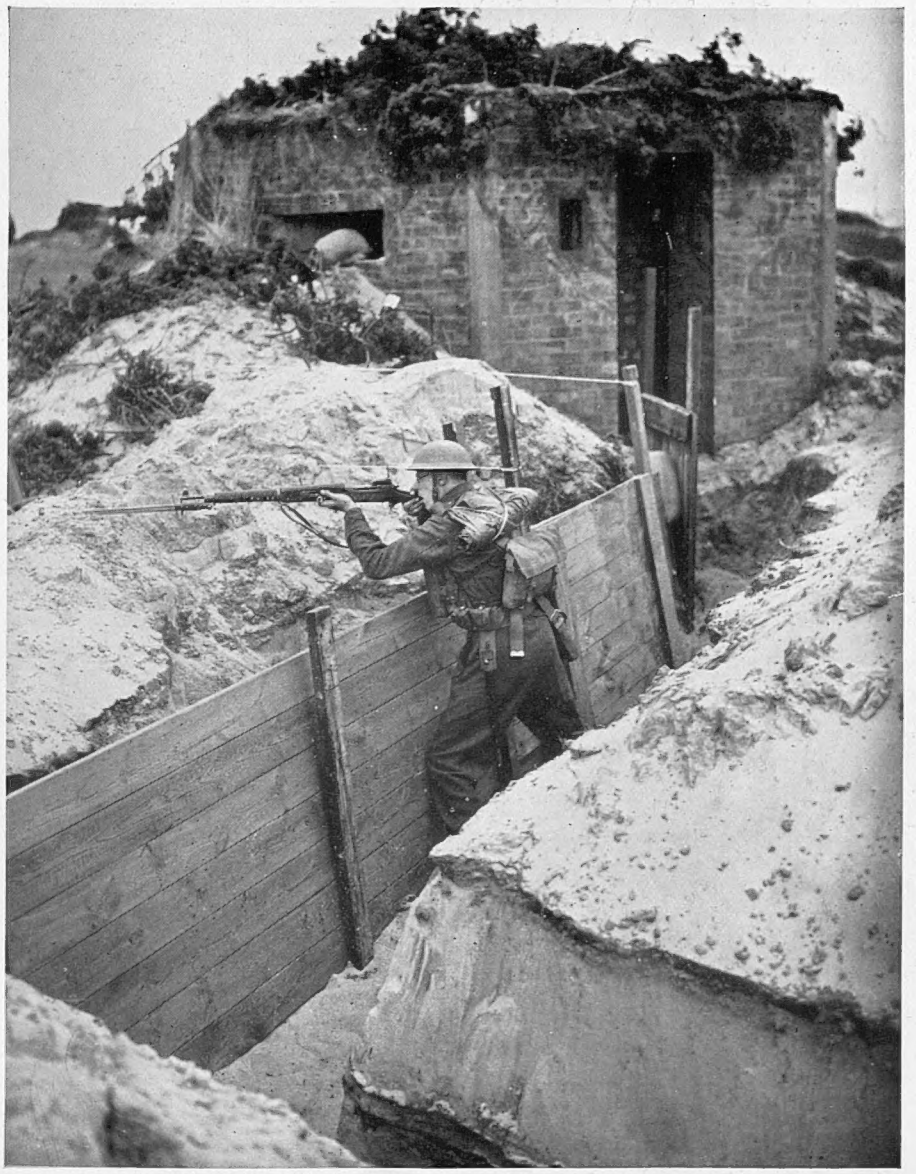
INFANTRY ON THE MARCH THROUGH RURAL BRITAIN

Low Countries and France. Our Overseas Forces, in particular, are impressing all observers with their soldierly qualities: wherever they go throughout the country they are met with the warmest cordiality



AUSTRALIAN ARTILLERYMEN, AT PRACTICE IN BRITAIN

is worth more than any amount of gold." Consequently, in every part of the country, defensive effort goes side by side with actual military training



PILL-BOXES AND TRENCHES: Men of the Norfolk Regiment, firmly entrenched along the coast, are here carrying out practice in repelling an assault on a pill-box. The latter is strongly constructed of brick and is camouflaged against detection from the air. Such practice as this is going on daily around the whole of Britain's coastline

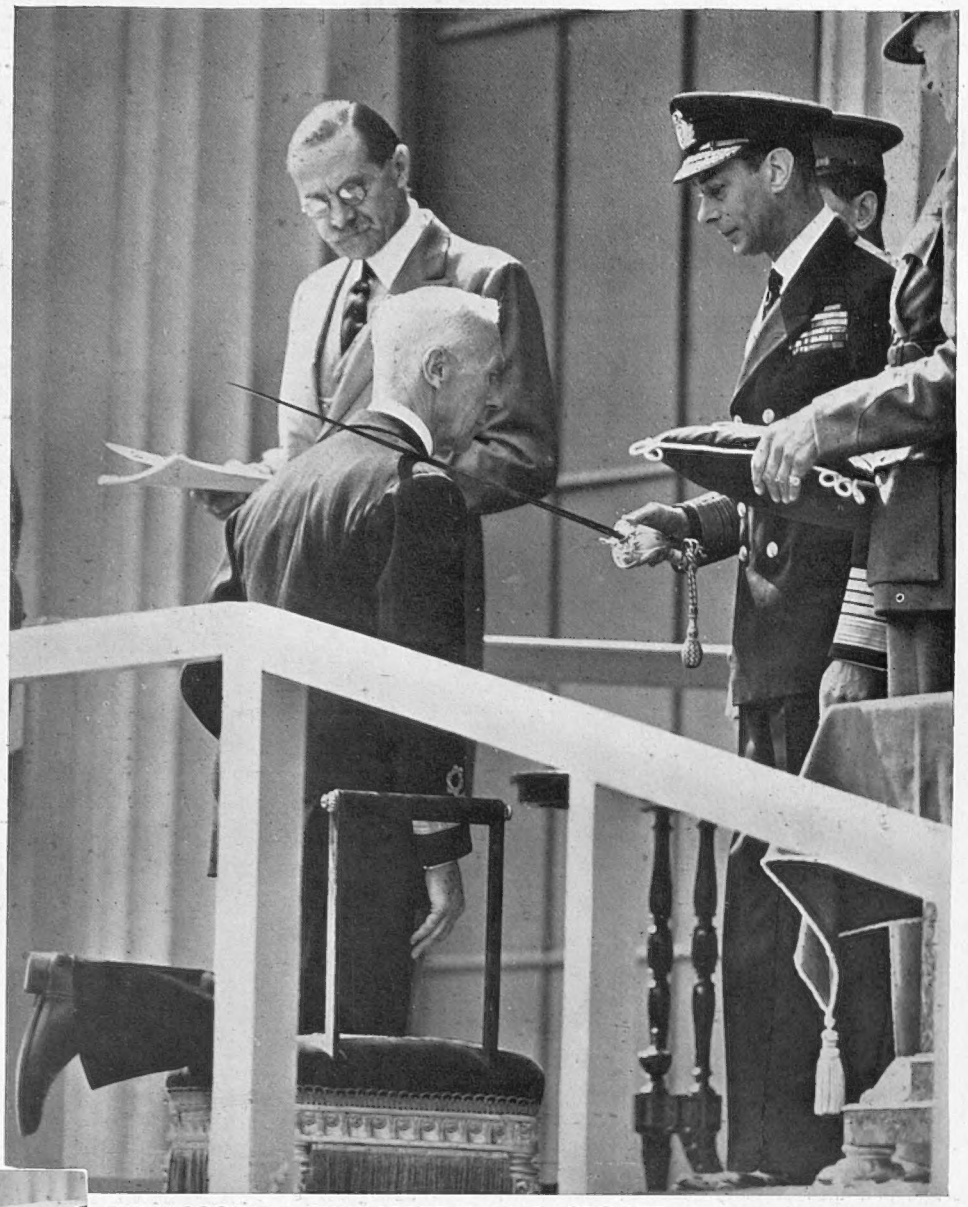
TRAFFIC CONTROL: Profiting by experiences in Belgium and France, the Army has organised a Traffic Control Group as distinct from the Military Police. Their duty is to direct traffic; and, in an emergency, they will have special instructions for keeping the roads clear of refugees or civilian motorists for the better transport of military traffic

AUSTRALIANS IN TRAINING: Running up with shells for the 25-pdr. guns: a picture taken during the training in England of the Australian Imperial Forces

THE INVESTITURE

The King Decorates War Heroes at Buckingham Palace, Tuesday, August 6

THE ACCOLADE: The King knights Air Marshal Arthur Barratt, who commanded the R.A.F. in France. He was made a Knight-Commander of the Military Division of the Order of the Bath



THE ACCOLADE FOR ADMIRAL H. R. CROOKE: The new Knight kneels on a crimson stool with head bared, whilst the King touches him on both shoulders with a sword. Sir H. R. Crooke was one of the two admirals knighted

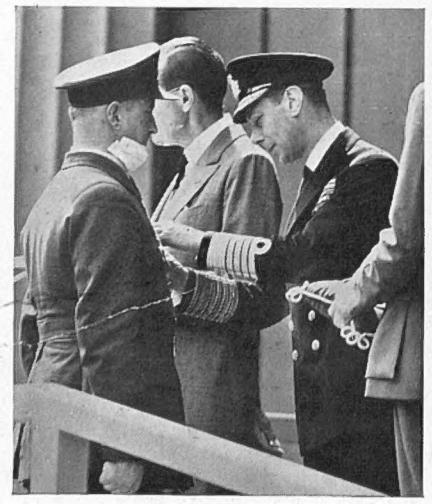
FIRST V.C. OF THE WAR WHO HAS LIVED TO RECEIVE HIS CROSS: Captain Harald Marcus Ervine-Andrews wearing the V.C. immediately after being decorated by the King at Buckingham Palace

ACTING SECTION OFFICER JOAN PEARSON of the W.A.A.F. receiving the O.B.E. for rescuing a British pilot

MISS ROY, Matron-in-Chief of Queen Alexandra's Military Nursing Service, receiving the C.B.E. from the King

CAPTAIN G. F. STEVENS-GUILLE, R.N., who received a bar to the D.S.O.

COLONEL C. N. USHER, O.B.E., of the Gordon Highlanders, receives the D.S.O.



FLYING-OFFICER DAVID EDWARDS, who was awarded the M.B.E.

FLIGHT-LIEUT. J. SIMPSON receiving the Distinguished Flying Cross

AN "APPRECIATION OF THE SITUATION"

Our Problem—And That of the Enemy

A Dispassionate Survey by CHARLES G. GREY (Foremost Air Commentator)

SO many people, especially Americans, have a habit of judging things by quantity rather than by quality, that I want here to take a look at the war generally, particularly for the benefit of American readers of THE SPHERE, who, judging by my correspondence, seem to be important both in quantity and in quality.

So let us compose a brief Appreciation of the Situation—as the high and well-born Staff call it when they are preparing for a campaign, or troop movements. And here the word "appreciation" does not mean putting up the price, it means getting at the true value of things.

Judging by their local papers Americans have an idea that Britain is a little island off the coast of Europe which is due, at any moment now, to be overflown by enemy bombers and blown to blazes in wholesale and retail, and dropped upon by parachutists who, made mobile by folding bicycles, will proceed to beat it up with Tommy-guns. After which, when the British Navy has been torpedoed by speed-boats in the English Channel and the North Sea, Britain will be properly invaded by tanks and completely subdued, after the British Government, accompanied by the various subsidiary Governments now fugitive in this country, has transferred the British Capital to Ottawa, under the protection of the United States.

Now let us look at it from the other side. People who remember the last war have heard a lot about interior lines of communication. The Germans were able to radiate their efforts from bases in Northern France. They had short lines of supply, and when their troops and Air Force were badly beaten up by us they could easily be sent down to the French Front for a nice rest. We, on the other hand, had exterior lines of communication all round the Hindenburg Line, from Belgium to the Swiss Frontier. If we wanted to reinforce the French we had to send troops round by Paris, hundreds of miles, instead of being able to send them across a chord of a circle.

Over and over again our generals had to push in disastrous attacks, knowing that they could not succeed, to keep the German armies nailed to the British Front, so that they should not walk through to Paris.

Now the position is reversed. We have the interior lines of communication in fighting, and limitless exterior lines of communication for supplies. The Germans have exterior lines of war, and interior, but widely extended, lines of supply through hostile country.

From Land's End round by Dover to John o' Groats we have about 800 miles of coast line which might be attacked at a limited number of points, behind which is a united population, very good fortifications against landings either by parachutes, troop carriers or from the sea, and an enormous force of highly superior fighter aeroplanes which can be flown in an hour or two from anywhere in the island to anywhere else.

Likewise we have plenty of railways, so hopelessly criss-crossed that no foreign pilots could hope to fly by Bradshaw—which is the aviator's phrase for following the railways—and we have quite a lot of roads, albeit somewhat hampered by our enthusiastic L.D.V.s — now the Home Guard.

Now look at the German position when we are ready to attack, which presumably will be when we have made more and bigger tanks than the Germans have got, and have trained a few more million men, and have a few more thousands of aeroplanes and crews to spare, and when we have promoted a few more senior officers of all the services up into the higher ranks where they cannot do any harm.

Leaving out Norway, which has no land communication with Germany, although we were told that it was going to be Hitler's Peninsula War, there is a nice stretch of coast from Denmark round by Calais to the Pyrenees, which is about 1,700 miles long, on any part of which we can land troops and worry the enemy, if only on tip-and-run raids.

Cut out the Bay of Biscay if you like, and only consider the coast from Ushant to the tip of Denmark, and there are still some 1,200 miles at which we can hit. And from any point on it we can march into Germany.

All along that coast the population, although it may not love us particularly, and may think that we let it down by not having a big enough Army and Air Force to keep the Germans out, certainly loves the Germans still less, and, believe me, the "Fifth Column" activities of German agents in Holland, Belgium and France have been nothing compared to what our own Fifth Column activities will be in those countries when the time comes for us to hit. And any damage the local population may do to German personnel or material will be blamed on the British raiders.

Looked at on the map of the world Britain does not seem Great. You could take the lot and dump it in that area of the United States known as the Dust Bowl, which has been created by bad American farming. But if our American critics, most of whom have never been south of their own Mason–Dixon line, except to go lobbying in Washington, would come over and take a look at this country, they would find that Great Britain covers a lot of space.

Anyone can work out that there is not a square foot of Great Britain over which German bombers cannot fly, but they do not reckon that, equally, every square foot of Germany, and the whole of industrial Italy, can easily be reached by British bombers, such as exist to-day without considering those of to-morrow, and that while we have a limited area to protect, Germany's job in protecting all Germany, as well as that 2,000-mile stretch of hostile occupied coast, means an enormous dispersal of fighting power.

Another mistaken view is that the population of Britain and Northern Ireland is about 45,000,000 people and that we are up against a German population of 90,000;000, plus the productive power of Holland, Belgium, and France.

We are nothing of the sort. We are 45,000,000 people, fairly well united in our determination to lick Germany—whatever troubles we may have to settle among ourselves afterwards—plus some 15,000,000 or so white Australians, Canadians, New Zealanders, South Africans, and Colonials. The German population is, I believe, about 65,000,000 people. The rest are Czechs and Poles, or what the Americans generically class, among their own population, as Bohunks, which means any kind of Slav. And they are not exactly bursting to fight for the Vaterland.

People are apt to forget that from the advent of George I in 1714 to the death of William IV in 1837, a matter of 120 years, the King of England was King of Hanover and Elector Palatine of the Rhine. So much of our nobility and gentry originated in those parts. And, in spite of some five or six years of intensive training of the youth of Germany, there are still masses of Germans who have no tradition of hostility to this country, and probably would not be at all sorry to join in with us to escape from Prussianism and Russianism.

Already we see the R.A.F. starting an intensive air war, such as this paper has been preaching practically since the beginning of the war. The R.A.F. is no longer tied to Army co-operation work in a frantic effort to save the French Army. We are now hitting at Germany from the air. We have millions of men in the British Army, besides those terrific contingents from Australia, New Zealand and Canada, all itching for a hand-to-hand scrap.

A gunner colonel friend of mine who was through the hottest of the fighting in Belgium says—"The Boche is not half the chap he might be, and can most certainly be swotted."

Most of our soldiers who have met German infantry, although they have a respect for them, also know that they can be swotted. The R.A.F. equally knows, as Air Marshal Sir Philip Joubert de la Ferte pointed out in one of his brilliant broadcasts, that 3 to 1 in the air is normal odds, and it does not mind taking on heavier odds than that. So I cannot see why 45,000,000 British people, the bulk of whom are plain common English, plus all those fighting fit youngsters from the Dominions, need worry about 65,000,000 Germans, plus or minus 25,000,000 Bohunks.

That, at any rate, is an appreciation of the situation so far as the Germans are concerned. There is no room here in which to deal with what the Italians are worth in this war, but do not make the vulgar mistake of underrating them. Nothing is so silly as underrating your enemy. The Italians, when well led, have that curious feminine tenacity which is characteristic of the Mediterranean people. And the cockiness and the jauntiness of some of our cheaper papers is not going to do us any good, especially if we take a knock or two from the wrongfully despised Italians.

But I do know that the Italians hate being bossed by the Germans. And if the German Army start stuffing the Italians full of German strategy and, worse still, try to make the Italians use German tactics either in the air or on the ground, there will be some nasty incidents in the Germano-Italiano forces.

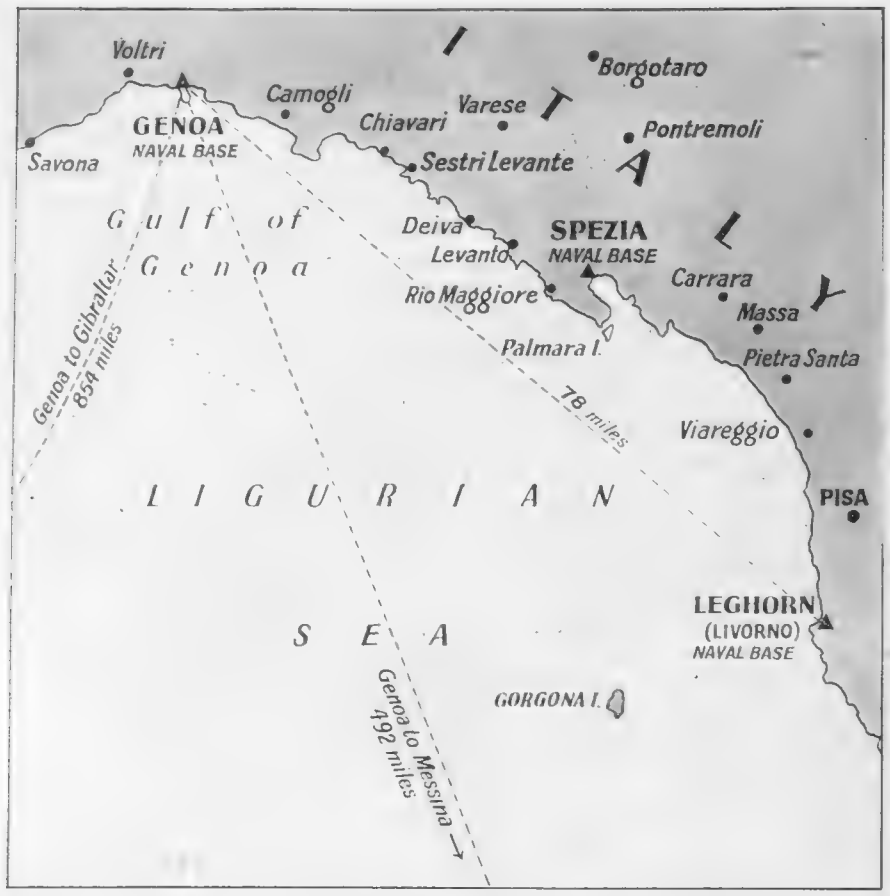
In the meantime we are not doing too badly. We have not really begun fighting yet, but we are not waiting to start fighting until we get those three thousand American aeroplanes a week from America. Mr. Knudsen, one of America's leading aircraft manufacturers, said frankly the other day that we are not going to get them until 1942. I would not mind betting that, if only our people at the top do the right thing and get a move on, and use our production capacity as it might be used, the British Armies will be quite a long way into Germany by 1942.

IN THE AIRCRAFT: A CORPORAL GIVES INSTRUCTION TO TWO OF THE MEN WHO ARE LEARNING TO TAKE PHOTOGRAPHS FROM THE AIR

AIRCRAFTMEN WITH THEIR CAMERAS RECEIVE LAST-MINUTE INSTRUCTIONS BEFORE LEAVING TO TAKE AERIAL PHOTOGRAPHS IN ACTUAL FLIGHT

AT AN R.A.F. SCHOOL OF PHOTOGRAPHY.—These two pictures were taken at a Royal Air Force School of Photography where men undergo a six-months course, learning photography from the very beginning. Here they are taught all there is to know about aircraft cameras, including their use and the installation in aircraft. Towards the end of their course they have flights in Ansons and take their own pictures; on landing they develop, print, enlarge and make their own mosaics. At the completion of their training they are posted to squadrons as Photographic Leading Aircraftmen and work in the R.A.F.'s photographic departments.

WHERE THE ITALIAN FL



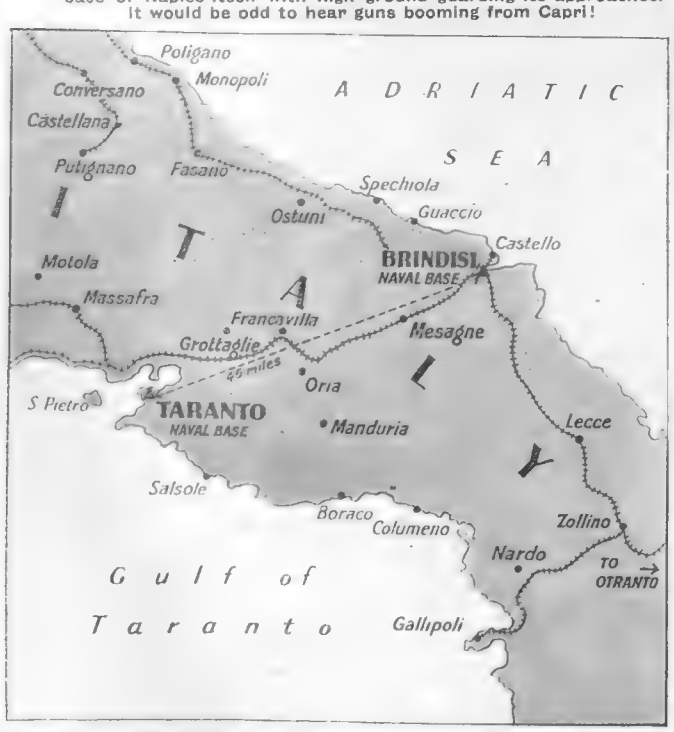
AT THE HEAD OF THE LIGURIAN SEA: Genoa is Italy's chief commercial harbour as well as being a naval base. Farther south is Spezia, another base, and still farther down the rocky western coast is Leghorn or Livorno. Where the coast rises behind these positions, it is easy to place guns which command the sea and protect the Navy

IN GENOA'S ONCE BUSY HARBOUR: Right up to the declaration of war by Italy, Genoa was busy with the arrival of big ships. Now they neither arrive nor depart, except at extreme jeopardy. If a ship wished to reach Libya with a supply of water, it would have to make a dash via the Straits of Messina

LEGHORN OR LIVORNO IS A PICTURESQUE PORT: Leghorn is normally a very busy seaport, with ships daily approaching and leaving the ancient harbour and fort built hundreds of years ago by Ferdinand I. A considerable amount of naval shipbuilding has been carried out here; ironworks are in the neighbourhood

TWO BASES ON THE TYRRHENIAN SEA: Along Italy's west coast is Gaeta, a naval base, and inside the Bay of Naples is the enclosed base of Naples itself with high ground guarding its approaches. It would be odd to hear guns booming from Capri!

POLA HARBOUR PRESENTS A BUSY SCENE: It is here seen to be occupied by one or two warships and floating docks and other signs of naval activity. Low wooded hills guard the entrance to this Italian naval base

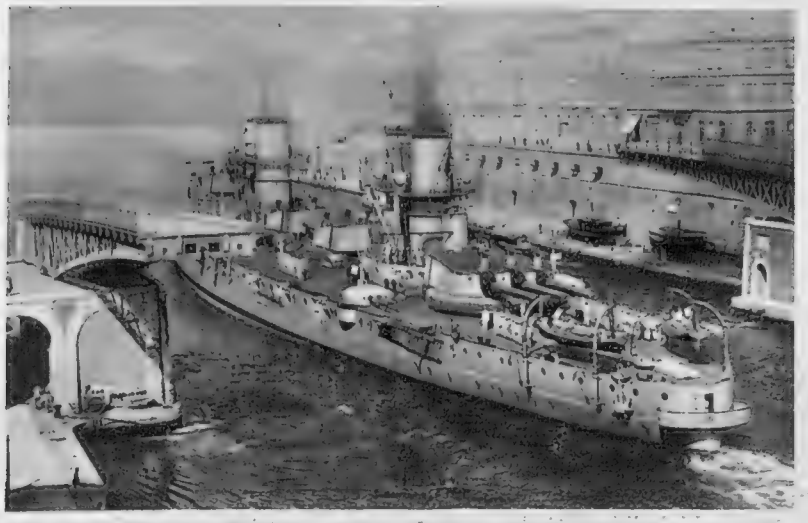


TWO BASES ON THE HEEL OF ITALY: In the Gulf of Taranto lies the naval base of that name. There is a small inlet beside which the railway runs across to Brindisi, another base, which is, however, not so comfortable as Taranto as a naval station

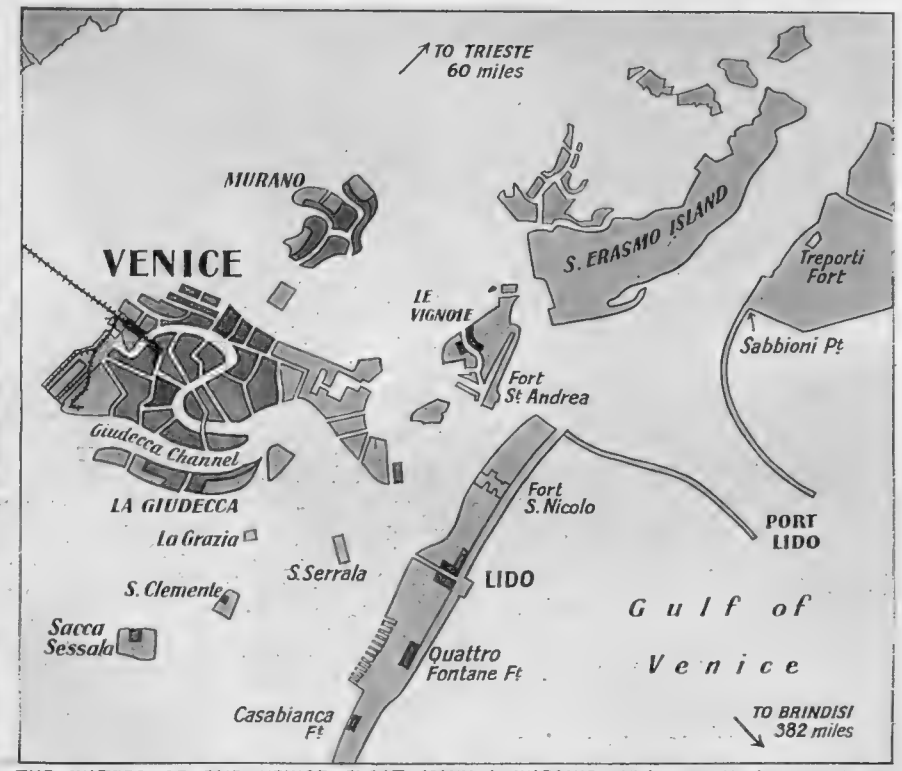
AN ENCLOSED AREA AROUND ELBA: On studying the map closely, it would appear that the Italians might have studied the possibilities of the Tuscan archipelago as an area of protection against British naval action

Reproduced on these pages are maps and pictures illustrating a number of points on both the western and eastern coasts of Italy to which its warships are resorting in case of need. Several of them are doubtless occupied at the present moment. Some of the bases are obviously, from the lie of the surrounding land, stronger than others. The mouth of the Adriatic Sea is probably heavily guarded as it was in the last war, and the Italian naval authorities may regard Pola as their most comfortable spot. Over and above the harbours and bases illustrated here, there are of course several desirable harbours on the eastern shore of the Adriatic. They happen to belong to Yugoslavia, but to desire is to strive to obtain according to the Axis book of diplomacy. Last week it was stated, via Zurich, that Italy would soon be putting up certain claims against Belgrade and that these would, among other things, involve the transference of Cattaro Harbour and other bases on the eastern shore to Italy

EET SEEKS THE PROTECTION OF LAND BATTERIES



WARSHIPS COME CLOSE INTO THE CITY AT TARANTO: An Italian battleship is passing into the inner harbour, the swing bridge having been opened to allow of its passage. The naval harbour is considered one of the best in Italy and the arsenal also possesses some very spacious docks



THE WATERS OF FAIR VENICE FLOAT MANY A WARSHIP: Visitors to Venice must have been familiar with the sight of Italian warships of various sizes and classes moored within the protective arms of the Lido and S. Erasmo island. The entrance to the inner waters is by Port Lido

On left— IN THE IMMEDIATE FOREGROUND on the right a small war vessel is under construction or repair. The arm of the harbour is approached through picturesque gateways. The whole shore of the bay is dotted with houses

FAR FROM THE ANNOYING ACTIVITIES OF ALEXANDRIA: Here, high up at the northern end of the Adriatic, are Trieste and Pola, and Fiume looks geographically comfortable for a fleet seeking rest and dignified security. But Pola takes pre-eminence

WHERE THE ITALIAN VESSELS SEEK SHELTER FROM BRITISH PURSUIT: After steaming in the troubled waters of the Eastern Mediterranean for a time, vessels of the Italian fleet have the safe harbourage of the Straits of Messina to which to return when hard pressed. With guns on both sides of the Straits, the position would be uncomfortable for an attacking squadron. Messina itself possesses a very fine harbour, but a strong current runs through the Straits

TWO BASES FACE ONE ANOTHER ACROSS THE ADRIATIC: Here Ancona lies on the western shore with an eastern promontory as guard, but across the way there is Zara with a string of intricate islands in front of it—140 miles separate the two. Zara was acquired by Italy after the 1914-18 war

ON THE MARCH TO A LECTURE: Members of the Home Guard on their way to a field in the grounds of Osterley Park, where lectures and demonstrations are given by experts

UNDER THE EYE OF THE INSTRUCTOR: Making a hole in the roadway for placing a landmine. This is exploded electrically, and is part of the Osterley Park course in anti-tank warfare

BLOWING UP THE LANDMINE: To this concealed point some distance away run the wires for exploding the mine at the moment an enemy tank passes over or near it

REPRESENTING A TANK: A car pulling a trailer—a supposed tank—over the landmine. For obvious reasons only a small quantity of black powder is used in the carrying out of these demonstrations

THE "STAFF COLLEGE" of THE HOME GUARD

The Intensive Course in Defence and Offence which is Now Being Given to Home Guard Volunteers at Osterley Park

Described by NOEL THOMPSON

THE most amazing feature of the collapse of France was the wonderful stimulus it gave to the idea of Defence. Instead of this country falling a prey to the Terror tactics of Hitler, as it would seem the Germans fully expected, the whole country flared up with a new Resolve—to resist Invasion to the last man, and to defend every inch of this Island Home of Freedom.

Consequently, to those familiar with the British temperament, it came as no surprise to learn of the rapidity with which volunteers joined the Home Guard. Within five minutes of the first announcement on the wireless police stations were besieged; and the rush never stopped until it had to be—because there was no room for any more in most districts. Not even the name then given, the Local Defence Volunteers, which cannot compare with the much briefer, more personal and more accurate Churchillian name of Home Guard, could discourage them. And so 1,250,000 men of all ages and ranks put down their names within a month. There are waiting lists; and though the past few weeks have, luckily, been ones of biding time, training, and of duties which may sometimes seem tedious, there is no waning in the enthusiasm.

All of which leads me up to the latest example of enthusiasm, a training school for the Home Guard at which I have just spent two days; and was that enthusiasm infectious? I will tell you why and how.

In enthusiasm was the idea born. There could hardly be enough practical leaders to teach all the men who were so anxious to learn, so a class was started to teach the leaders and any other members of the Home Guard who could spare two days for a concentrated course. Lord Jersey immediately allowed part of his grounds at Osterley Park to be used as field headquarters, just 25 mins. by car or 50 mins. by tube from Piccadilly Circus. A mile away was a building estate, and No. 72, Bassett Gardens was vacant. It was immediately taken and fitted as an office. A nucleus of instructors, of whom I shall have a lot more to say later, offered their services, and the scheme was launched.

Two London companies of the Home Guard were told of the opportunity on their doorstep. Twelve members turned up, went away enthusiastic, and spread the news. A fortnight later when I paid my first visit eighty-six men had applied to take the course. And eighty-eight turned up, 100 per cent. muster plus two friends who had been brought along. For a fortnight ahead usually there are no vacancies. On the two days I attended, the volunteers had come from Leeds, Nottingham, South Wales, Halifax, in order to learn.

I should say that there are no charges. If you want to rough it very slightly for the night you can take your own blankets, and if you apply early enough they'll find a bed for you. There is a batman to cook your rations for breakfast, and to call you. Otherwise an hotel is not far away.

The idea of the course is to be practical and up-to-date, to teach the use of imagination, of improvisation, and the lessons of modern war. Well, the instructors between them have had thirty-four years of active service since 1935, and one of them alone has eleven immobilised tanks to his credit. At the head is the expert, Tom Wintringham, and he has picked men with him. They give their services and prefer to remain anonymous, but they are an Indian army officer from the Sappers; an ex-R.N.A.S. officer who was much in Spain; a gunnery expert; an expert in field tactics; an Englishman who fought in the last war in the French army, won the Croix de Guerre and the Medaille Militaire and never seems to have stopped fighting somewhere, and three Spaniards who are giving their services after their experiences in their own country. Philipe, an Asturian miner, and Antonia, a toreador, were dynamite experts, while Ricardo, a medical student, became a brigade leader.

Parade on the first day is at 9 o'clock, and on the second at 8.30. Some of those present would normally hardly be thinking of breakfast at that hour, but they were 100 per cent. present and punctual. Clothes varied from uniforms to the (recommended) oldest trousers, sports coat and mackintosh, because work goes on wet or fine and much of it has to be in the open air.

At Osterley they like the change of name; L.D.V. put too much stress on defence, and a defender must know how to attack as well, so they concentrate on teaching attack. There is no drilling—the less of that, they think, the better.

Lectures, or rather practical informal talks, are given in a large and shady field, in which a cunningly camouflaged marquee makes a comfortable hall in case of rain. First talk dealt with war generally. As one instructor explained to me, "It is no good having a namby-pamby attitude. For years the Germans have instilled a war mentality, until they forget everything but war. Some people still have the peace mentality. The Germans have no mercy or compunction. I say if you see a German soldier and can shoot him unawares in the back, then shoot him. If you are defending a house the peace mentality will say, 'What nice furniture—must have cost a lot—have to be careful.' No, smash the furniture to build a good barricade; knock down a wall to get a good field of fire."

As the Home Guard know that they may be fighting for their lives and all our lives, that is good advice.

Lunch time makes a welcome break. Four minutes walk away is a real country pub, with an ex-service man, Mr. Horley, as mine host. Prepared for a hungry invasion he puts up on a large table slices of new bread, pork pies, veal and ham pies, sausage rolls, and twenty pounds of nice hot sausages, with home pickled onions and cheese. In five minutes it looked as though there had been a *blitzkrieg* on that table. Men who looked as though they usually spent an hour and a half over a comfortable lunch led the attack. Good beer washed it down, and another beer to follow. Over the table is a notice:

"Gentlemen of the Home Guard. Please help yourselves, take note, and pay at the counter"—which is a sensible way of dealing with eighty hungry people.

If there is time a game of skittles, in the old-fashioned alley with the real flat "cheeses," follows, and so back to work.

In one section there were a general, two colonels, a distinguished man about town of the old days, and an advertising director of a famous firm. They were being taught the use of cover, and how to approach silently. One lesson was demonstrated by masking a man completely, seating him on the ground and placing a bunch of keys between his legs. The object was to obtain the

AN EXPERT DEMONSTRATES: A panoramic view of the class in a semi-circle round the instructor, who is lecturing the Home Guard on the subject of explosives. Notebooks and paper are always well in evidence. A carefully camouflaged marquee is used on wet days. The spacious grounds at Osterley Park, part of which Lord Jersey has allowed to be used as field headquarters for the Home Guard, form an ideal training centre

keys before he could point out your position. They soon found that crawling, even up wind, was too noisy. The knack is to walk with bent knees, one hand on each, placing the feet carefully in a straight line. In that position you are balanced and can stop dead in a fraction of a second. It was a joy to watch the excitement of a man who, after three minutes of circuitous creeping, reached the keys.

For the practical use of cover there is a fine wood nearby with plenty of undergrowth (and brambles). The instructor stood in the centre and the class scattered 200 yards round him. Then, crawling, they had to get as near him undetected as they could, while he pointed out to each how he had given himself away. One man got quite near and then stood behind a tree. But he had not the build. "Sorry, you'll have to stand sideways," came the rebuke.

To end the first day came talks—and questions—on guerrilla tactics and street fighting, so crammed with practical experience as to be bloodthirsty. Out came the notebooks again—I should have said these were always in evidence at talks—and down went the important points for repetition to colleagues. It was grand stuff, as most of them said when at 6.30 the first day ended.

8.30 next morning saw no absentees. A half hour on Messages, another on German Tactics to Expect, and then it came to the teaching of the throwing of bombs. The Spaniards came into their own. Light cement dummies of the right size and shape were used.

It looked simple enough. No. 1 position, left leg forward, knee bent (I am talking for a right-handed man), both hands in front. No. 2, right arm back, left arm and shoulder pointed as for a javelin throw, and No. 3, the hurl, following through flat on the face in one movement, with no curiosity to see where it has gone or what the effect was, if you are wise. But it is not as simple as it looks. One man nearly hit the front rank man lying only five yards ahead of him. Others reached thirty yards. It was clear how they improved with practice.

And so to vivid talks of anti-tank fighting, and then practical work. A car drawing a farm van represented a tank as it roared down the road. Cunningly concealed ahead was a blockhouse. The "motor cyclists"—enthusiastic boys on bicycles—were allowed to pass, to be dealt with by a trip wire and rifles, while the tank came on. The blockhouse opened fire, to which the tank replied, its attention drawn from pits on either side from which poured a shower of bombs as it drew level. The road and surroundings were perfect for this demonstration, which I have outlined very briefly. One bomb pit, which is correct, I noticed was so shallow that a tank passing over it would not crumble the edges, and so narrow that it would be safe to lie in it and let a tank pass over.

Well, that is something of what is being taught and what the Home Guard enthusiasts are learning and passing on.

In this article I have omitted, of necessity, certain details of the training; but I do emphasise that the Osterley Training School is a pioneer, and I congratulate the organisers on their efficiency. It only remains for the idea to be developed all over the country. I trust and believe that it will be; and that very soon there will be a measure of uniformity in the training of all those who are determined that never will this soil be yielded up without the bitterest struggle.

A SANDBAGGED RIFLE NEST: Home Guard trainees sighting their rifles through a barrier. Men come from all over the country to take this twenty-four-hour course at Osterley Park

A SIMPLE BUT EFFECTIVE TRAP: Stretching a "blind" wire across a road. This method is very effective against enemy motor cyclists attempting to advance under cover of darkness

NIGHT PATROL ON THE MOORS: Armed and experienced ramblers who know the local countryside are keeping watch on the northern moorlands every night between dusk and dawn. This new force is a special branch of the Home Guard and already they have a membership of over a hundred. Two members are seen returning to their headquarters on the moors in the early morning

THE CORRECT THROWING ANGLE: Members of the Home Guard being shown how to throw a hand grenade. The instructor is a Spaniard who fought in the Spanish Civil War

THE ART OF BOMB THROWING: The third position for throwing a hand bomb. The left-hander is too late—he can get no distance from that position. The centre man has thrown early and is lying flat, as he should

OLD PANS INTO NEW AEROPLANES

How the Transformation from Scrap to Ingots Is Made

OLD POTS FOR NEW PLANES: In answer to Lord Beaverbrook's appeal for the collection of all aluminium pots and pans, an encouraging response has been made by Chelsea. In a very short while a considerable dump was formed, made up of a most miscellaneous collection of articles

SAUCEPANS INTO SPITFIRES—INTO THE SMELTER GO THE POTS AND PANS: When the Minister of Aircraft Production told housewives that their pots and pans were virgin aluminium he was more than 99·2 per cent. correct. The first 50,000 kitchen utensils collected in response to his appeal have now gone into the furnaces—and have come out as 10 tons of pure aluminium, worth £1,100. The cost of sorting, cleaning, smelting, and transport was only £170. On this first smelting the housewives' sacrifices have thus saved the nation a sum of £930 and have ensured a very worth while stock of the pure aluminium which is now so necessary for aircraft production

ISLINGTON'S £40,000 SALVAGE MACHINE: This machine, which cleans and sorts the refuse brought in by the Borough's dustcarts, is a paying investment in war-time and a valuable national asset. It deals with thousands of tons of refuse and makes a profit of thousands of pounds. Here are members of the Women's Volunteer Service who have come to see for themselves how tin cans are extracted from the masses of refuse

THE SAUCEPANS INTO SPITFIRES—A STAGE NEARER FULFILMENT: The pots and pans and kettles are wheeled out in the shape of ingots of pure aluminium ready for incorporation in the new aeroplanes

Above and on left—**A NAZI FLYING BOAT HELPS TO SWELL BRITAIN'S ALUMINIUM COLLECTION:** The remains of a German Dornier flying boat, shot down by a Spitfire off the North-East Coast, now forms a very useful contribution to Britain's aluminium collection. The machine drifted ashore and was salvaged. It is now in a local scrap yard and in the process of being broken up. The four members of the German crew, incidentally, were rescued after they had taken to their rubber boat

WATCHING ABYSSINIA FROM THE SUDAN

Scenes on the African Rivers Which Are Now Swollen with Seasonal Rains

HERDS OF CAMELS ON THE ATBARA RIVER, NOW SWOLLEN AND PREVENTING ENEMY OPERATIONS: Enemy planes fly over the upper waters of the Atbara *(see map on following double page)* and try to cut the railway connections of Khartoum. The animal life is singularly undisturbed by these war activities. Even gazelles graze quietly along the railway track and baboons chatter by the railway bridges which have been attacked a few hours before

On left—
A TRIO OF DINKAS DISCUSS THE WAR NEWS: These warriors stand 6 ft. high and have matted helmets of their own hair. They inhabit South Sudanese regions

On right—
A VERY LARGE AMOUNT OF TRAFFIC is carried on the Nile by these little steamers. Two of them are seen moored at the Mogren quays, Khartoum

WILD GAME ON THE UPPER WATERS OF THE NILE IN THE SOUTH SUDAN TERRITORY: Astonishing sights are witnessed by pilots flying over the Southern Sudanese territories. Vast herds of elephant can be seen bathing in the rivers and moving slowly through the adjacent marshy lands where they roam immune from disturbance. Nearer to the Abyssinian border the country is desert scrub; and here British troops are keeping the Italian forces in check

KHARTOUM IN RELATION TO THE ABYSSINIAN FRONTIER: One-hundred-mile circles give distances from the city. An aviator flying to Kassala has a journey of 250 miles, to Asmara 450 miles, to Massawa some 500 miles. The rivers Atbara, Gash, Dindar and the Blue Nile are all now in flood, hampering operations until September

WATCHING ABYSSINIA from the Sudan

THE EMPEROR HAILE SELASSIE returns to Africa—he was reported recently to have reached Khartoum

ON July 13, the Government of the Emperor Haile Selassie was recognised by the British Government as the lawful Government of Abyssinia, with the promise that independence is to be assured when victory is achieved. The restlessness among the tribes has grown ever since the news that their leader had left his home in England and was somewhere near them. The Emperor arrived at Khartoum on July 21, having travelled by plane across France to Malta, and from there to Alexandria. He was obviously happy to be back and full

THE SWIMMING POOL AT THE SUDAN CLUB, KHARTOUM, where Sudan Government officials refresh themselves; Italian officers, stationed in Abyssinia, were not averse to the amenities of the Sudanese seat of Government in pre-war days

On left—The railway runs from Khartoum to Sennar, and thence to Kassala and El Obeid, right out in the desert. The rising waters of the Atbara prevent any enemy dash at the railway

LOOKING ACROSS THE BLUE NILE AT KHARTOUM: After the capture of the city in 1885, Khartoum was laid out on a planned system, roads running at right angles to the river and parallel to it. The main city lies on the south bank of the Blue Nile as seen above. Lining the river are the military hospital, the palace of the Governor-Gen and law court cornerwise, a and racecours the majestic

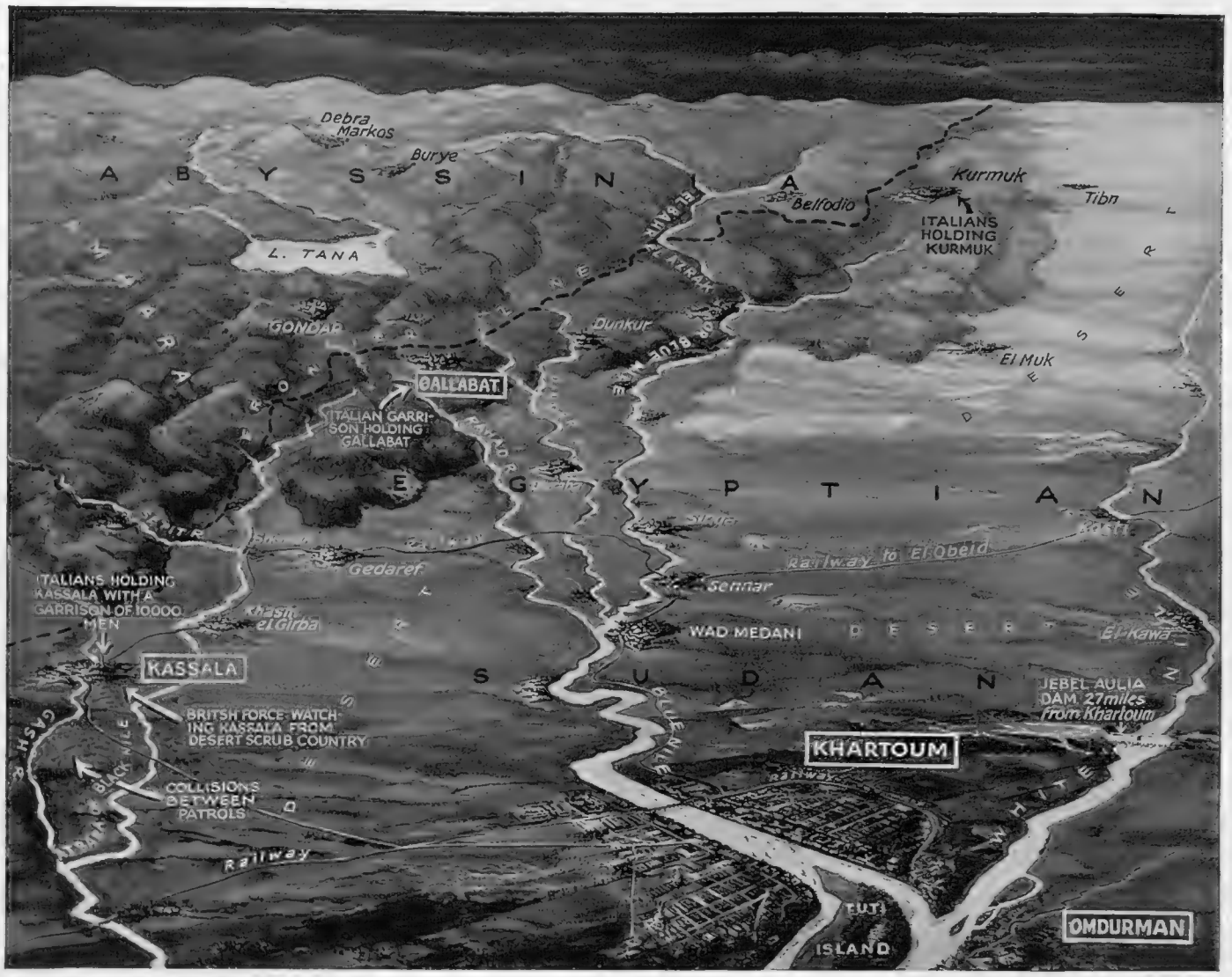
River Conditions Which Control the Operations on the Sudan Frontier

of new hope of success. He donned military uniform before setting off in the plane for Khartoum. The Coptic community in Egypt, an influential and wealthy body, are very sympathetic to his cause and are ready to give assistance.

The British forces on the Sudan frontier consist almost entirely of Sudanese troops, who have shown themselves sturdy fighters. In the early days of the war against Italy they enjoyed making raids into the enemy's country, where they scored many successes. Italy had to put a stop to this and determined on a spectacular victory, so an overwhelming force was gathered—consisting of all the outstanding weapons at their command — tanks, armoured cars, and camels, supported by bombing planes. It was a display of military might likely to frighten a small frontier force, but the Sudanese, with their British officers, faced it calmly, and with their rifles and machine guns accounted for several tanks and some hundreds of the enemy, as well as disabling camels. Having proved their mettle, they then retired in complete order, having sustained, it is said, only five casualties.

This operation put the Italians in possession of Kassala and Gallabat, but proving a difficult problem. their occupation is The rains have come down in tropical strength, the rivers from the Abyssinian heights are rising, filling up the gorges, and forming a huge lake at Kassala. Food, which has to be brought from Gondar, is already one of the difficulties facing General Farucci, in command of Kassala, which is to be held at all costs. Great activity is witnessed in the fortifications of Kassala, where barbed wire is being extensively used to fend off British attacks. Ten thousand men are said to be now holding this small frontier town. But no immediate advance can be made on either side as rushing rivers and huge stretches of mud now render such an operation through the surrounding country impossible.

The British, who are well supplied with ample food, and can get munitions along the railway, watch with patience, while the Italians are harassed by growing difficulties of supplies. The sea blockade prevents anything arriving down the Red Sea; only by air can their new empire of Abyssinia receive any assistance. This has to come from Libya, via Kufra, and over the Sudan, the planes being burdened with petrol for the return journey, for none of the precious fluid can be spared. As the rainy season lasts until mid-September the position of the defenders of Kassala, and also Gallabat which was reported cut off, is not a very enviable one.



KHARTOUM AT THE MEETING PLACE OF THE BLUE AND WHITE NILES: Where the two great branches of the famous river meet lies the modern capital city of Khartoum. It has changed much in recent times, and if ever the ghost of General Gordon were to return there would be little to indicate to him his precise whereabouts. Some of the gardens in the city are beautifully kept

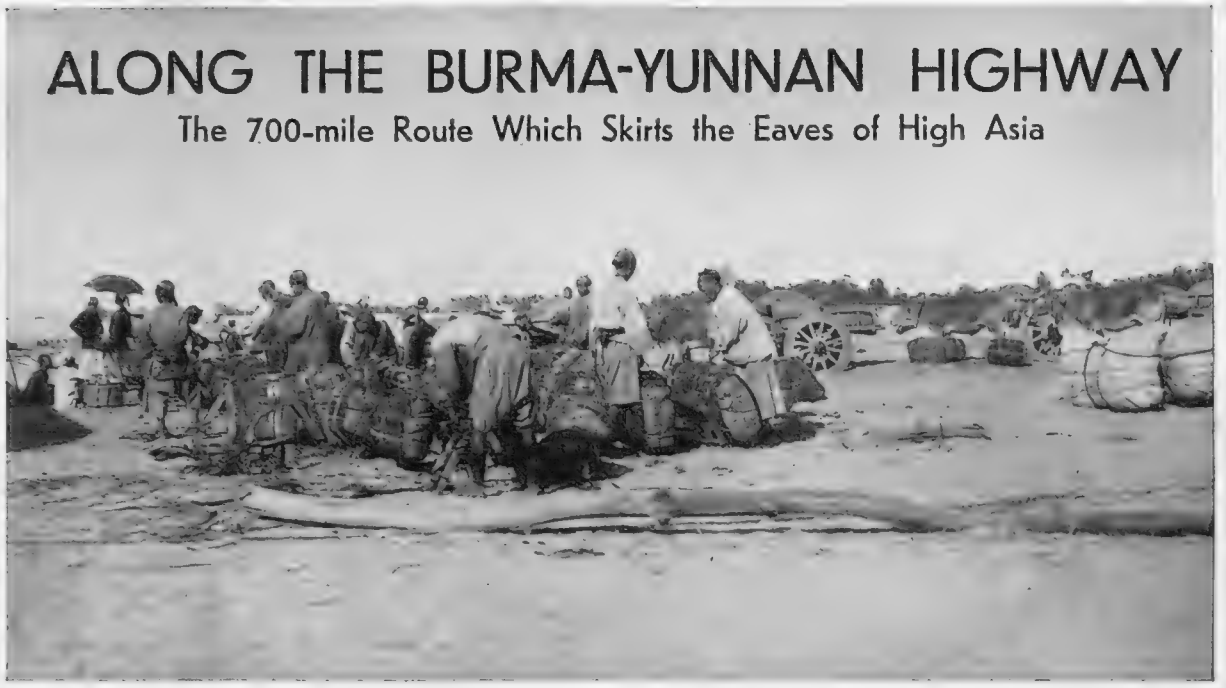
al, the big block of government offices, the post office In the middle distance can be seen the mosque, set In the background, the railway station, parade ground . Beyond lies the flat desert with a distant prospect of ver

LOOKING TOWARDS NORTH KHARTOUM AND THE RAILWAY BRIDGE WHICH CROSSES THE BLUE NILE: This view is taken from the background of the one shown on the left. The government offices and official buildings are seen among the trees and gardens. In the foreground are some lesser streets of the city, joined in some cases by transverse roads. The railway bridge links the city with North Khartoum, where are the customhouse and parade ground. The railway system is local to the Eastern Sudan

ALONG THE BURMA-YUNNAN HIGHWAY

The 700-mile Route Which Skirts the Eaves of High Asia

A KACHIN MAID OF UPPER BURMA, wearing her silver ornaments. She is standing in the market of one of the towns near the western end of the Burma highroad



UNLOADING PRODUCE ON THE SHORE OF THE IRRAWADDY AT BHAMO: Bhamo, always a busy trading centre, is one of the points to which produce and war supplies for China have been shipped in the upper waters by means of shallow draught craft. Bhamo is now connected with the main Burma–Yunnan highway by a new branch road

The temporary closing of the Burma–Yunnan route, which for the past year has been the road by which munitions of war have reached China for her continued struggle, has drawn the attention of the world to this remarkable highway. It measures 700 miles, if one includes the 116 miles which connect Lashio railway terminus with the Chinese frontier. It negotiates two big rivers, the Mekong and the Salween, and crosses several high mountain ranges. Bridges have had to be built at many places. This has necessitated skilled engineering at these points, but at others, the work of cutting the highway was accomplished by thousands of native Chinese. An interesting note by Professor C. G. Beasley of Rangoon, contributed to *Geographical Journal* for June, brings the news concerning the highway up-to-date on several points. The professor stresses the success of the highway as a traffic route, the volume of trade being very large.

"The trade," he writes, "now goes from the railhead at Lashio, and in the eleven months from the first of April to the end of February, 1940, commodities to the value of £2,000,000 sterling passed over the road from Burma to China in addition to a large volume of munitions and war supplies, the figures for which are not disclosed by the Government of Burma. A great variety of items is included in this trade."

FROM LASHIO STATION TO THE FRONTIER IS 116 MILES: The Chinese section of the Burma Road ends at a point over a hundred miles from Lashio, the present railhead. It was being repaired in patches when this picture was obtained

AT THE FRONTIER: This stone near Musé marks the boundary between Burma and China

SIGNS OF MODERNITY AT RAILHEAD: The bazaar quarter at Lashio, the railhead of the line running northwards from Rangoon, consists of shack-like buildings with corrugated iron roofs evidently run up rapidly to meet the increasing activities of the place which may one day be a very busy spot indeed

THE BOUNDARY HAMLET ON THE BURMA-YUNNAN MOTOR HIGHWAY: Muse, on the actual frontier, bears every sign of the rapid growth

CUT OUT OF THE HILLSIDE: Part of the Burma highroad has to skirt the hills by a deliberate cut such as this. Towards the western end of the route the gradients become steeper, as the mountain country is entered

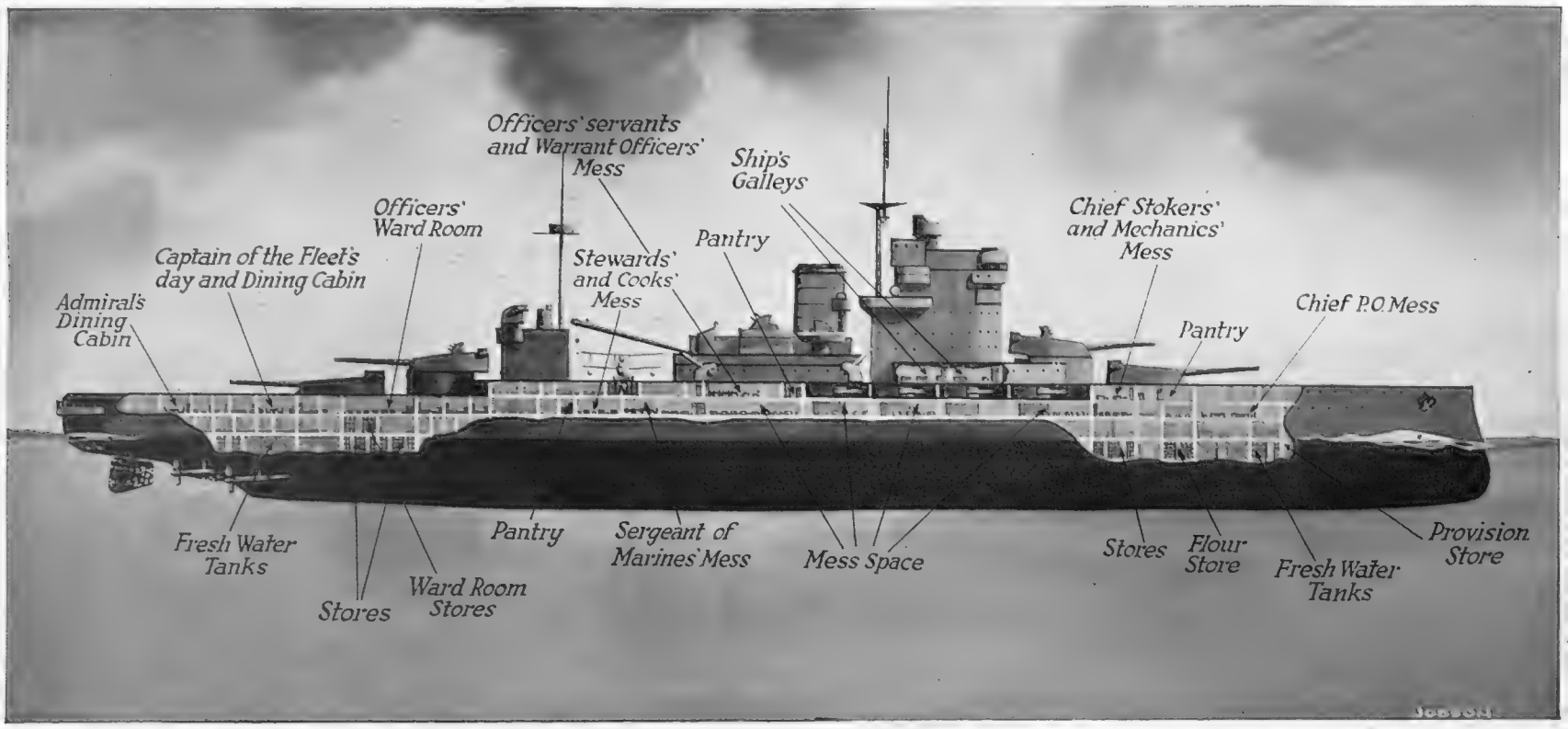
A CAMEL CARAVAN ON THE NORTHERN ROUTE ENTERS PEKIN: Occasionally a local string of camels may enter Peiping, or Pekin, reminding one of the days when this route was a highway of great renown. The camel caravan has largely given way to the petrol lorry

A SUSPENSION BRIDGE SOMEWHERE ON THE BURMA HIGHWAY: A great number of bridges and culverts have had to be constructed. They replaced in some cases very primitive but cleverly-built native structures

which is coming to villages and towns on the highway. The view shows the state of the Burma Road and a type of car using it. The older lake-plateau towns along the route retain their picturesque characteristics

A NEW HIGHWAY ON THE OLD SILK ROUTE: There is another doorway into Western China which may enable material to reach Chungking if a route from Lan-Chow could be worked out. This is the roadway which was commenced some time ago along the route through Chinese Turkestan, Lan-chow-fu, and Sian into west-central China. The position of Sian is to the north-west of Chungking

THE MODERNISED SILK ROUTE SKIRTS HIGH MOUNTAINS AS IT ENTERS CHINA: The intermediate route described above enters China at the northern end of a great mountain barrier which is not penetrated by any traffic routes. This glimpse of the kind of scenery one meets in the Minshan mountain group shows the extreme difficulties of the country from a traffic point of view. The river valleys are mostly unusable



THE FLOATING CITADEL AND HOW IT IS VICTUALLED—*Special "Sphere" diagram*

Everyone knows, in broad outline, how a battleship is fought in action: very few, however, realise the manner in which such a huge floating fortress is fed. Many of the capital ships in the British Navy have a population as large as that of a small town: all the men have to be fed—and, unlike the town, all the food consumed by the 1,200 to 1,400 men has to be stored and carried on board if the vessel is at sea for any length of time. The diagram above shows the internal economy of a large British man-of-war, omitting all its defensive and offensive armament. It shows how the men mess at various points below the main deck, the positions of the stewards' and cooks' mess, the officers' wardroom, the Captain of the Fleet's day and dining cabin, the Admiral's dining cabin, and the other quarters and galleys (or kitchens) on board

FEEDING THE BRITISH NAVY AT SEA

A Complex Problem Satisfactorily Solved by the Paymaster Officers

Described by FRANK BOWEN

THE British Navy to-day, generally speaking, is as well fed as any service in the world, at a cost to the taxpayer of between 1s. 3d. and 1s. 6d. per day according to the price of food, and practically no extra cost at all from the bluejacket's own pocket. Although the system is entirely different and the men do not get as much variety as they might by the cafeteria system which the British bluejacket would never accept, it is as good as in the United States Navy, long famous for its victualling, where the choice offered is so wide and the men's usual selection so unwise, that the authorities are very worried over the spread of night-blindness through lack of Vitamin A. The standard of cooking is not up to that of the French, but the Jack Tar would be deeply suspicious of the tasty dishes put before the matelot.

Unfortunately the realisation that good feeding makes the contented individual, and the contented individual makes the efficient fighting ship, is of comparatively recent growth, and infinite trouble was caused in the past by the Admiralty expecting the pursers to make their living by cutting down the quantity of the men's food, while corruption and lack of organisation in the depots made the quality appalling to begin with. The naval mutinies of 1797 were largely due to bad feeding, and in partial rectification the system of "savings" was introduced, to continue for more than 100 years. Under this each man was entitled to a scale of victuals and could draw a money allowance, known as savings, for any part of his rations that he did not draw, generally because they were uneatable. The price allowed was unfair, so that the bluejackets had to dip into their ill-lined pockets for the balance demanded by the bumboatman or canteen keeper, and when their pockets were empty they had to go hungry. With better and more regular pay, and controlled canteens, this was not so bad in the latter days of the system early in the present century, but it was still unfair.

The lower deck of a man-of-war is divided into so many messes of from sixteen to twenty men apiece, with long tables and forms which are hoisted up to the deck above to be out of the way in action. Until quite recently, and even to this day in some ships, the allowance of food was served out to the mess in its raw state and two members were told off in turn to do duty as "cook of the mess" for the day, the duty including everything but cooking. The part most prized by the bluejacket, who always fancies himself as an amateur chef, was preparing the day's rations for the galley, and although there was plenty of enthusiasm and no lack of ideas, the results were generally weird.

The favourite dishes were "schooner on the rocks," a roast surrounded by baked potatoes, "ooshmagoosh," or second-class steak and onions, which is sliced cold beef baked in the oven with brown gravy and onions, and "acting rabbit pie," which is made with any meat available down to bully beef. Under this system the very best of cooking would have no chance with the amateur preparation and dyspepsia was the inevitable result. The cook of the mess received a proportion of his messmates' rum, known as "plush," with which to entertain his friends, which was compensation but which did not help with the preparation of the food. Only a very few ships, on account of their obsolete construction or small crew, are now messed on this system which is known as the "standard ration system."

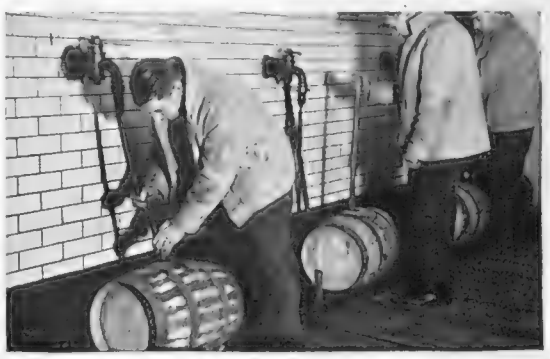
All the sizeable ships have adopted what is called the "general messing system," in which the bluejacket has nothing to do with his food until it is served up at the table, properly prepared and cooked by a trained staff. Big preparing rooms are fitted in all the new ships and those which have been reconstructed, which is obviously preferable to amateurs doing the work on mess tables in all the bustle of the ship's lower deck. Such a system, providing for anything up to 1,500 men on strictly economical lines, naturally calls for higher supervision than is possible from warrant officers of the Cooks' Branch, and this responsibility falls on the accountant, or paymaster, officers who are the Navy's very efficient *maîtres d'hôtel*.

It has been suggested that the system would be even better if civilian caterers of long experience were embarked in H.M. ships, but there are obvious disadvantages to that and the accountant officers do the work wonderfully well. It must be remembered, of course, that it is only one of the innumerable duties that they tackle in addition to the ship's pay and accounts, but it is recognised as very important and one in which the whole ship's company immediately knows of any shortcomings. The bluejacket sucks his teeth in silent reproach, as has been his way for centuries, while brother officers in the wardroom are outspoken.

An effort was made to introduce general messing when the first Dreadnought came out in 1907, but the cooks were very nervous of the job, the seamen were conservative as ever, and after a short experiment it was dropped at sea but continued in the training establishments and land depots so that the sailors could see its advantages for themselves, and after the war it was reintroduced and gradually spread to all big ships.

Enthusiasm alone will not carry a caterer anywhere and the accountant officers have to go through quite a long training. Part of it is theoretical, although no theory will replace actual experience and knowledge of sea conditions and sea tastes, but there are several practical courses as well. A concentrated course at Smithfield Market gives them some knowledge of meat and how to look for blemishes, a cookery course gives them enough practical knowledge to supervise the galleys although they do not pretend to be cooks, and various other aspects receive their quota of study.

It is, perhaps, the practical side which is most difficult to learn, planning out breakfast, dinner, tea and supper for a fair-sized town. They are allowed so much a year worked out at from 1s. 3d. to 1s. 6d. per head per day, but there has to be a certain amount of give and take daily according to opportunity for purchase. They can lay out the money with the Admiralty victualling yards which send large quantities into the ship's storerooms and refrigerators, the firms on the regular Admiralty contract lists, the Navy, Army, and Air Force Institute for groceries and luxuries, and various local firms in the ports of call for fresh fish, vegetables, salads, and the like. But the accountant officers are responsible for the price and quality of everything, no matter where it is bought, while at the same time they must always be watching the regulations and considering the balance of credit they have in hand, listening to the views of the medical officers on diet, considering the conditions of the station and climate, and giving full weight to all complaints.



THE RUM RATION: Drawing off rum from the vats into casks at the Royal Naval Victualling Yard at Deptford. These casks vary in size according to the complement of the ship to which the rum is eventually destined

BEFORE THE FOOD IS SENT ABOARD: A SCENE AT THE ROYAL NAVAL VICTUALLING YARD AT DEPTFORD: Here samples of food are being inspected in the Laboratory Examination Room. In this case, peas, piccalilli and tinned runner beans have come under the watchful eye of an expert. This examination, to which all samples are subjected, is extremely thorough: not only are they analysed for the purity and quality of the contents but—in the case of the piccalilli—scrutinised for a proper balance of the various vegetables

These are mostly on the score of variety and cooking. The bluejacket will enjoy sardines and cucumber at any time, paid for out of his own pocket, but he strongly objects to having the best of fish for supper one day and breakfast the next, as he reckons that is monotony. The paymaster who wants a happy ship also carefully avoids choosing, for days on which the ship's company expects a drop of leave, dishes which entail much washing up. A careful calculation has to be given to the capacity of the ovens and steamers in choosing the menu, for the great aim of the *maître d'hôtel* is to prevent any delay between the cooking of the food and its appearance in the seamen's messes.

Under this system the bluejacket gets four meals a day in addition to his big cup of Navy cocoa—the best in the world—when he turns out. For breakfast he gets bread, butter and tea and either two eggs, an egg and bacon or sausage, or two sausages or fish. Mid-day dinner consists of soup, a meat dish with two vegetables pudding or fruit and bread. Tea includes jam or meat paste with bread and butter, and cake or rock cakes, while supper is tea, bread and butter, meat, fish or eggs, or cheese and pickles, and various salads, shrimps and local delicacies—after very careful examination if the ship is on a foreign station—are worked in where possible.

Under this general messing system it has been found that the ordinary bluejacket will spend about 2s. a month in the canteen for extras that he happens to fancy, while under the old standard ration system the man expects to pay from 12s. to £1 on extras and substitutes. A very large proportion of these extras go in tea, which the bluejacket consumes in colossal quantities, and always demands to have it stewing ready for his attention, to the great concern of the medical branch.

In the old days the Admiralty was very concerned over the reluctance of the bluejacket to eat breakfast, contenting himself with tea and bread and butter, and it was believed that this was due to a desire to economise on extras, although it is far more likely that the real factor was the trouble in its preparation when the men had to get it themselves and wash up afterwards. Now a good breakfast is served out as a matter of course and there is no doubt as to how the men enjoy it, for the average seaman has no concern for his figure.

One of the accountant's greatest worries is the subject of cooking, for he has to wear down the old naval prejudice against cooks. It is a prejudice easy to understand, for nowhere did the old proverb about God sending good food and the Devil sending cooks apply more than in the Old Navy. Until quite recently the cooks were ex-training ship boys who were reported to be useless as seamen and they undertook their duties with very little training, but although the Cooks' Branch is now fully trained before it is embarked it is not popular, as the promotion is slow and the pay not particularly good considering the arduous work and long hours. The Cooks' Branch feel themselves to be the target of constant complaints and hints, and the efficiency of a big ship's galley depends to an extraordinary degree on the accountant officer. If he adopts the "strict service" attitude it is soon shown in the standard of the cooking, but if on the other hand he is a real enthusiast, the results are equally striking.

Nowadays the accountant officer, with the varied duties which he undertakes, has many avenues to distinction, but the one sure avenue to the bluejacket's heart is by way of his stomach, and many officers show a perfect genius for the catering side, finding it much more interesting than is generally imagined and seeing the result in a happier ship's company, which shows itself in the ship's efficiency. That does not mean, of course, that the bluejacket does not grouse about his food in the best-fed ships. If there were no complaints the officers would immediately become worried that there must be something radically wrong seething below the surface. The bluejacket changes very little in his essentials and the traditional story of his attitude towards his food still holds. It has been told for nearly forty years how the kindly civilian met a bluejacket ashore and, having read about the improvements in victualling which had been effected, was surprised to hear the bluejacket grumbling so much about the food.

"What's the matter, then?" he asked, "don't they give you enough to eat?"

"Oh, yes, there's plenty of it, such as it is."

"Oh, I see, you mean that the quality is poor?"

"Oh, no, it's good enough, what there is of it."

RATIONS BEING ISSUED ON BOARD A DESTROYER: Many watchful eyes prevent unwarranted manipulation of the scales

"COOKS OF THE MESS" PREPARING THE FOOD FOR THE MEN: On the destroyers the old system is still followed

ON THE BIG WARSHIPS, where space and the size of the crew permit, there are now up-to-date bakeries such as this

THE "GALLEY" ON A MODERN BATTLESHIP is a real kitchen capable of cooking for 1,400 men a day

"COOKS TO THE GALLEY!" A scene on the aircraft-carrier *Ark Royal* as the various messes collect the hot meals

ON BOARD A DESTROYER (being a much smaller vessel) the arrangements are not so comprehensive as on the battleships

THE SAILORS' MESS DECK IN H.M.S. "NELSON": The tables at which the men sit are slung out of the way after meals. Note the number of bird cages —the property of various members of the ship's crew

ON BOARD THE AIRCRAFT-CARRIER "ARK ROYAL": Here the space permits of much luxury: the tables, for instance, are fixtures and not slung up after meals. Cushions, even, are provided for seamen and aircraft mechanics

BELOW the SURFACE in a BRITISH SUBMARINE

"DIESEL ALLEY"—THE ENGINE-ROOM OF A BRITISH SUBMARINE

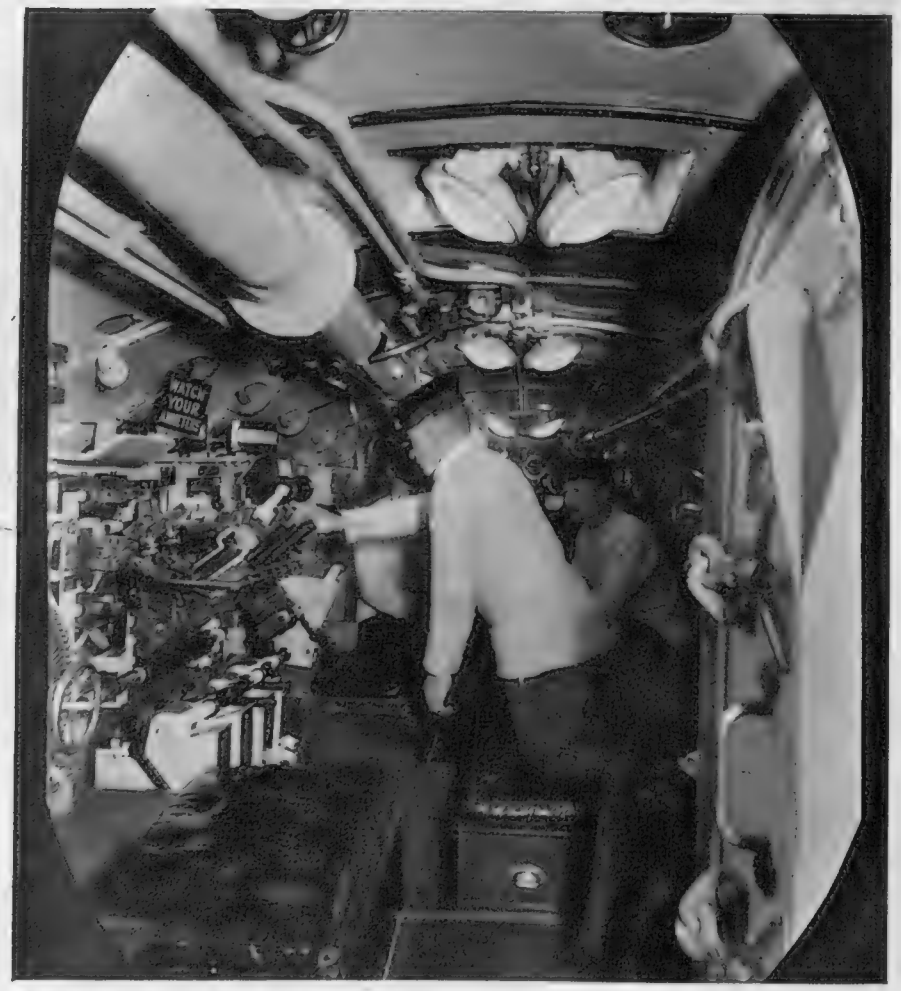
For driving the submarine on the surface there are two Diesel engines, each of which develops 1,200 h.p. The stoker is here seen examining the inside of one of the crank pits: the large pipes and valves at the top lead the exhaust gases out to the atmosphere. Space on a submarine is extremely limited; and whilst on actual service officers and crew live under very cramped conditions

THE BUSINESS END OF THE SUBMARINE

Showing two of the six torpedo tubes which are arranged in three tiers. To load the tubes the doors are opened back and the torpedo inserted. The doors are then shut and clipped and the torpedo fired by compressed air. The discharging of the torpedoes can be effected either by lever near the tube itself or by electricity near the periscope. The actual firing is done by the Commander who aims his vessel along the line on which the torpedo is required to run. He does this by observation through the periscope alone

On left—**A BERTHON BOAT RETURNING TO THE SUBMARINE**

Each submarine carries one of these collapsible boats: the Commanding Officer is here transmitting orders by megaphone from the bridge. The crew of a British submarine varies from twenty-two in the smaller types up to fifty or sixty in the larger: and the speed varies from 13 to 20 knots per hour on the surface. When submerged the average speed would be in the neighbourhood of 9 knots



Above—**GOING DOWN—AN ACTUAL PICTURE DURING SUBMERGENCE OF THE SUBMARINE**

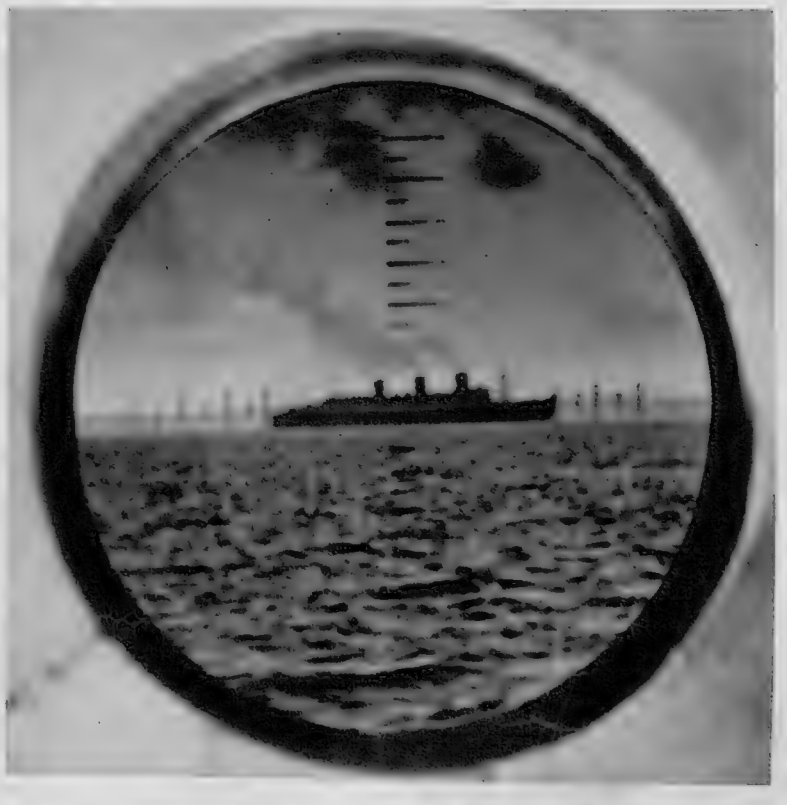
The men are controlling the main motors which propel the submarine. The motors are actually situated underneath the floor-boards. The switches which are being manipulated above are those which start the motors. This compartment is near the after end of the submarine. At such moments as this every man has his special station and his own definite duties to perform

ALL OUT FOR ATTACK

Here is the Central Control of the submarine. The two men at the bottom right corner are controlling the vessel by means of wheels which work the hydroplanes: they are stationed in these positions the whole time the submarine is submerged. The needle on the large dial is indicating that the vessel is just above 30 ft. below the surface: at this depth, but not lower, the top of the periscope can be raised above the water. The officer, with his eye glued to the periscope tube, is taking observations for his torpedo attack. All that the enemy would see on the surface would be about 6 ins. of periscope

THE CONTROL ROOM, SHOWING THE LEVERS CONTROLLING THE MAIN TANKS

The Engine Room Artificer (E.R.A.) hangs on every word which drops from the Commanding Officer's lips. The machine in the left-hand bottom corner is a low pressure air-compressor for throwing water out of the main tanks. The fuses for the main batteries can be seen in the right-hand bottom corner. The wheel under the E.R.A.'s left elbow is connected to a heavy section of the keel which can be dropped by moving this wheel in an emergency if the submarine is diving deeply and out of control



WHAT THE SUBMARINE COMMANDER SEES

When the submarine is submerged to its regulation depth the crew are entirely dependant on the periscope. This wonderful apparatus keeps the Commander informed of all that is going on above over a wide area; and this is what he sees when a ship comes within sight. Note the scale markings on the screen of the periscope, which indicate the range. In this case the ship is the *Queen Mary* and the picture was taken off the Isle of Wight

The NEW "E" BOATS of the GERMAN NAVY

The Fast Motor Torpedo Boats with which the Enemy have been Threatening British Shipping in the Channel

A GERMAN M.T.B. OR "E" BOAT THROWING OUT A SMOKE SCREEN AS SHE ATTEMPTS TO EVADE A BRITISH CHASER VESSEL WHICH HAS CAUGHT HER IN MID-CHANNEL: THIS IS THE TYPE OF VESSEL NOW BEING USED FOR THE "BLOCKADE OF BRITAIN" CAMPAIGN

CAUGHT IN A SUDDEN STORM—ONE OF THE NEW "E" BOATS EXPERIENCES BAD WEATHER CONDITIONS, A STATE OF AFFAIRS FOR WHICH THIS TYPE OF CRAFT WAS NOT DESIGNED. WHEN CONDITIONS LIKE THIS PREVAIL, THE BEST PLACE FOR SUCH CRAFT IS IN HARBOUR!

Drawings by Montague Dawson

PARTLY HIDDEN IN THE OILY SWELL—A GERMAN MOTOR TORPEDO BOAT, LOW IN THE WATER, RACING TO ATTACK A MERCHANTMAN

One of the agents in the "Blockade of Britain," of which we hear so much in the German and Italian Press, is the "E" class of German motor torpedo boats, or Schnellboote (literally, "quick boats"). These vessels have been very active during the recent weeks of fine weather in the Channel; how they will fare when the Channel is swept by the severe gales of winter yet remains to be seen. The "E" boat lies low in the water, it has a high speed, and in the day-time makes clever use of a smoke-screen; owing to its low lines and speed it can thus approach its prey quite close before detection. Nevertheless, results so far have been disappointing to the Germans, and there is reason to believe that secret counter-measures will soon make them more disappointing still. Before the war the Germans had twenty of these vessels. They have a displacement of 62 tons and a length, overall, of 93 ft.; they have Diesel engines of 2,400 h.p., which give them a speed of about 35 knots, and they carry a crew of nineteen. Their armament consists of two torpedo tubes and an anti-aircraft gun; they are wood-built and are exceptionally stout and seaworthy. The British Navy has vessels of similar design but greater speed; and ship for ship our vessels are of a far superior quality

LYING ALONGSIDE THEIR PARENT SHIP—AN ACTUAL PICTURE, TAKEN FROM A GERMAN SOURCE WITHIN THE PAST FEW WEEKS, OF A GROUP OF THE FAST NEW "E" BOATS: NOTE THE TWIN TORPEDO TUBES ON EACH SIDE OF THE DECKS

ACTUAL PHOTOGRAPHS OF THE "E" BOATS

On the left-hand page we reproduce three impressions of Germany's "E" boats, or Motor Torpedo Boats, which Mr. Montague Dawson, the famous naval artist, has drawn specially for "The Sphere." Here we reproduce actual photographs, just to hand, of the same vessels. To supplement the details given on the opposite page: these "Night Hawks," as they have been dubbed in Germany itself, are armed with shell-firing automatic 1½-in. guns as well as torpedoes. With a crew of nineteen officers and men they have a range of about 600 miles. With their low build and high speed they can sight even a small coaster before they themselves can be seen. Their Diesel engines emit a deafening roar whilst travelling at speed, but they can also prowl the seas in silence at lower speeds

THE ARMOURED BRIDGE OF THE M.T.B.s, WHICH HAS A HINGED TOP PART: BEYOND IS THE MAIN CABIN USED FOR NAVIGATION

THE CREW LOADING A TORPEDO INTO ITS TUBE: ON THE LEFT IS THE MAIN CABIN. NOTE THE COMPARATIVE SPACIOUSNESS ON BOARD THE TORPEDO BOAT

A GERMAN SAILOR DEMONSTRATES HOW THE TORPEDO IS FIRED—BY SMACKING DOWN THE CONTROL LEVER WITH HIS OPEN PALM

GLIDERS AND

Engineless Flight in Germany and Britain:

W A GLIDER IS TOWED IN THE AIR—(*Below*) THE FLIGHT HAS JUST BEGUN; AND (*above*) THE GLIDER IS WELL UP IN THE AIR, CONTRIBUTING LIFT BUT, OF COURSE, NOT SPEED TO THE TOWING AIRCRAFT

THE BIRTH OF A NEW WEAPON: A PEACE-TIME AT THE FLYING SCHOOL AT GRUNAU

In pre-war days a certain amount of progress was made in gliding in this country, but the attention paid to this art was never comparable with that of Germany. It has yet to be determined which country was the wiser! The home of gliding in England was Dunstable

THE MOST NOTICEABLE FEATURE OF A GLIDER IS ITS GREAT WING SPAN, COMPARED WITH THAT OF A NORMAL POWERED AIRCRAFT

BRITISH TROOPS CARRIED BY PLANE WITH FULL EQUIPMENT

Many people have the idea that Germany has a monopoly of troop-carrying aircraft. This is emphatically not so. Before the war this country was a pioneer in the carrying of troops under actual war conditions. On the North-west Frontier and across desert stretches, British soldiers—fully armed and equipped—were frequently transported by aeroplane as occasion demanded; and in military Exercises in Britain in 1938 troops were flown from one end of the country to the other. To-day, under war-time conditions, we have a number of aircraft specially designed for this purpose: chief amongst these is the Bristol "Bombay" (of which a picture is here given). This aeroplane can be used in a dual capacity—either as a bomber with a crew of four and a heavy load of bombs, or for conveying troops rapidly from point to point. Its maximum speed is 192 m.p.h. and its cruising speed 160 m.p.h. No further details of its performance are permitted by the Air Ministry

TROOP CARRIERS

And Experiments in Troop Carrying by Plane

IDER PILOT IN GERMANY QUALIFYING FOR HIS CERTIFICATE HERE GLIDING WAS PERFECTED AS A MILITARY ART

GLIDERS IN FLIGHT OVER BROKEN COUNTRY IN GERMANY. NOTE THE ENORMOUS SPAN OF THE WINGS

E TYPE ON WHICH THE PEACE-TIME PILOTS OF GERMANY RE TRAINED. THEY MAY NOW BE USED FOR WAR PURPOSES

THE BIRTH OF A NEW WEAPON: Before the war, thousands of Germans were being instructed in the art of gliding—for sport and air experience so we were told. Now we knew better, for it is unquestioned that the Germans made use of gliders for their invasion of Holland, where troop carriers stole silently to their objectives. Towed by aeroplanes, this was of course a simple feat, especially when carried out against an unsuspecting nation; but now we are told that large fleets of *big* gliders are being prepared for the invasion of Britain. And that will be quite another story! To begin with, the really big glider will be very awkward to tow over the North Sea: to tow three or four such big gliders might prove almost impossible with existing aircraft engines. When once the towed glider has been cast off from its parent, it is helpless—a prey to any fighter, or other armed aeroplane, it may encounter

BRITAIN HAS HER TROOP-CARRIERS, TOO: THIS IS THE BRISTOL "BOMBAY," THE TWIN-ENGINED HIGH WING MONOPLANE WHICH IS EMPLOYED IN THE BRITISH ARMY FOR THE RAPID TRANSPORT OF TROOPS. NOTE THE FIXED UNDERCARRIAGE OF THIS AEROPLANE

A BRIEF ESCAPE FROM THIS WAR

Napoleon and Hitler—The Last Phase? Putting the Fire Out and Keeping the Home Fires Burning

THE LAST INVASION OF ENGLAND.—Out of curiosity I unearthed some of my researches into the last invasion of England—that organised by Lazare Hoche in 1797 and carried out by an Irish-American, "Colonel" Tate, with some 1,200 desperadoes drawn from Paris gaols. This host was landed at Carrig Wastad Head, near Fishguard Bay, from three war vessels, which immediately weighed anchor; and after two or three days of uncertainty and mild marauding Tate's gaol-birds laid down their arms on Goodwick Sands.

Lord Cawdor took over the duty of supreme command from Lord Milford whose lieutenancy was most nearly concerned, and so it is that a stand of French arms and a French fleur-de-lys still adorn the front hall of Stackpole Court in Pembrokeshire.

The legend of the watching old women in their red whittles or flanes, alleged to have been mistaken by the French for an army of regulars and to have decided the capitulation, is documented and given credence in a contemporary letter which years ago a correspondent sent me from East Grinstead: It was written to a domestic servant in England from Narberth on February 27, 1797. "Dear Sister I write to you hoping you are in good health as I am at present thanks be to god for it the french invaded near fisgard Last wednesday which put the contry in Great Confusion because they wear 14 hundard and the contry gathard from all parts of Pembrokeshire near four hundard women in Red flanes and Squier Campbell (i.e. Lord Cawdor) went to ask them were they to fight and they said they were and when they com near the French put down thair arms and they wear all toke presoners that time & are brought to Haverford west friday night last no one killed but too of our men and five of the French by been to bould. . . . We had no more than four hundard men under arms and they thought the women to be a Ridgment of soldiers and they 14 hundard & the Lord tok from our enemes the spirit of War & to him be the prais God save the King."

A veracious and spirited account (though in fact Lord Cawdor was able to muster a bigger force than 400 men). The invasion is well documented in the Annual Register, in local records in South Wales and in Lord Cawdor's letters and despatches preserved at Stackpole, which complete the history. He himself convoyed to Whitehall, for examination by the Duke of Portland, the leaders of the invasion, Tate, and the other "stupid Paddies." Some of them were nearly killed by the mob at Oxford, but [illegible] their way at last to Dartmour for [illegible].

[illegible] researches of mine have ever elicited [illegible] the latter end of Colonel "Tate." [illegible]ps he returned to America and founded a respectable senatorial family. Or perhaps he is the [illegible] of one of Pétain's Government. In my notes an old woman still lived in Pembrokeshire who was an eye-witness of the first stage of the [illegible] off Fishguard.

Hitler and Napoleon.—There are passages in Lord Rosebery's great study *Napoleon: the Last Phase* which make interesting reading to-day apropos to Hitler. The last chapter, "The End," is worth re-reading carefully. Rosebery is considering the moment when supreme power destroyed the balance of Napoleon's judgment and common sense. He shows how he always reckoned as "submissive auxiliaries" the nations he had conquered and annexed. "He never seems to have given a thought to the storm of undying hatred and revenge that was chafing and raging below." Thus: "He added a Prussian contingent (to his Grand Army) when he must have known, had he been sane, that no Prussians could ever forgive him the humiliations which he had heaped upon their country."

Then of Napoleon as a gambler in human and national life in war: "Generals as a rule are fortunately controlled by Governments in matters of policy. But when the supreme captain is also the supreme ruler, there is nothing to restrain him from the awful hazard." "Of scarcely any sovereign warrior but Frederick can it be said that he sheathed the sword in time."

THE W.A.A.F.s OF "W.A.A.F. STREET": The girls of the Women's Auxiliary Air Force attached to a certain R.A.F. station on the East Coast live in a street of Council houses, which has been given over entirely to them. They are responsible for running the houses and keeping the gardens tidy. The W.A.A.F.s are delighted with this arrangement and infinitely prefer it to quarters in barracks. They live three or four to a house and take turns with the household washing and other chores

[illegible]itting the Fire Out.—I rather enjoyed my practical demonstration with the stirrup pump. To light a big fire and put it out appeals to the remnant of boyhood which survives in a middle-aged man. I found a beautifully furnished room in a setting of tin roof and tin wood-supported walls. There was a structure of tough wood and straw representing a bed, two wired cylinders of straw representing curtains, substitutes for a table, a chest of drawers, even a picture, and in a distant corner the bomb which set the fun going.

When all was set and the bomb well alight, the fire party of three advanced across the open carrying nozzle and hose, pump and buckets and entered the building along a corridor behind the room. We were, wisely, dressed in overalls and, as "No. 1," I slid on my stomach into the room which was densely filled with smoke. The smoke rises and it is breathable only at floor level. Well in the middle of the room I discerned the body of our heroic instructor; he was watching my actions and coaching me. I liberally sprayed and douched him several times in sheer nervousness.

The first thing to do was to lower the temperature of the room by turning the hose on the walls and ceiling. Next a short spell of spray (not hose) on the bomb. Next, attention was paid with the hose full out on the flaming bed. Another cooling on the walls and ceiling, another spraying of the bomb, still lively; another go at the bed and table with the hose (good results now). A direct hit on the picture. Another spray on the now depressed bomb and instructor, and then I felt myself being dragged away by my "No. 2" who was determined to have a hand in completing the good work.

I retired choking and weeping and proud, to receive later the critical "appreciation" of my efforts from our heroic, grimed, blinking, and sodden A.R.P. chief. It was all very instructive and amusing and uplifting. Heroism is always uplifting, not least the heroism shown at floor level.

For Napoleon, life was too short for his plans. "We have no doubt that Napoleon, after bringing Russia into his system and crippling or crushing Great Britain, aspired to become Lord Paramount of Europe." Rosebery doubts if Napoleon ever believed he could do it, let alone hold it.

His conclusion is that the mind of man is not of such fibre as to endure for more than a very brief time the strain of omnipotence; that a mental breakdown is inevitable, and glaring miscalculation or mere reckless gambling on "his star" must, sooner or later, bring to ruin the dictator's fame, country, and all he has built up. It is difficult to hold any other view.

Most significant sentence of all: "Into a score of years he crowded his own dazzling career, his conquests, his triumphant assault on the old world. In that brief space we see the hungry conqueror swell into the Sovereign and then into the Sovereign of Sovereigns. Then comes the catastrophe. He loses the balance of his judgment and becomes a curse to his own country, and to all others. He cannot be still himself, or give mankind an instant of repose. His neighbours' landmarks become playthings to him, he cannot leave them alone, he manipulates them for the mere love of moving them. His island enemy is on his nerves; he sees her everywhere; he strikes at her blindly and wildly. And so he produces universal unrest, universal hostility, the universal sense of his own incompatibility with all established society . . ."

If it be true, as we believe, that no man can dominate the world and remain sane, then we have the best proof that history repeats itself, and we may take comfort and hope from that truism. As with Napoleon, so with Hitler.

Storing for Winter.—See how they grow—the stores for a pinched and hard winter to come! Autumn is coming and it may be that the peculiar joys of autumn—harvesting and storing for winter—will gain and not lose in zest by the circumstances of war. For every addition to our stores will have the value of a necessity which in peace-time is but an economy of small individual importance.

What do we husband and store, calling on all the energy and initiative of young and old. We can and jam the spare fruit, not forgetting bilberries and blackberries, of which we hope to reach the 50-lb. mark in cans and jam jars. We jam and bottle plums; of strawberries and raspberries and currants we have already 40 lb. to show and fall back on. We bury new potatoes in tins beneath the soil.

We are out now collecting all loose and seasoned wood already of a size and shape to be fed to the open fire and to the central heating furnace. The wood cutters have left masses of it about and the chestnut cutters have cut their leavings to our measure. There are mounds of winter coke piled in the open, against the winter and a day when it will cost perhaps £3 a ton. Then there are fir cones, for fire lighting, gathered in piles under a tin roof and, more useful still, there are those substantial triangles of fir, cut out by the woodmen before the saw is applied to the trunk. These foot-long, thick triangles burn bravely on the open hearth.

There is bracken—once a valued litter for beasts—piled and thatched in many small farmyards, and this year we have tried the experiment of cutting peats from our own top soil. It is not bog peat, not the Highland or Irish pressed peat. It is looser and more sandy, but it burns quite hot and slow, if somewhat troublesome for the housemaid.

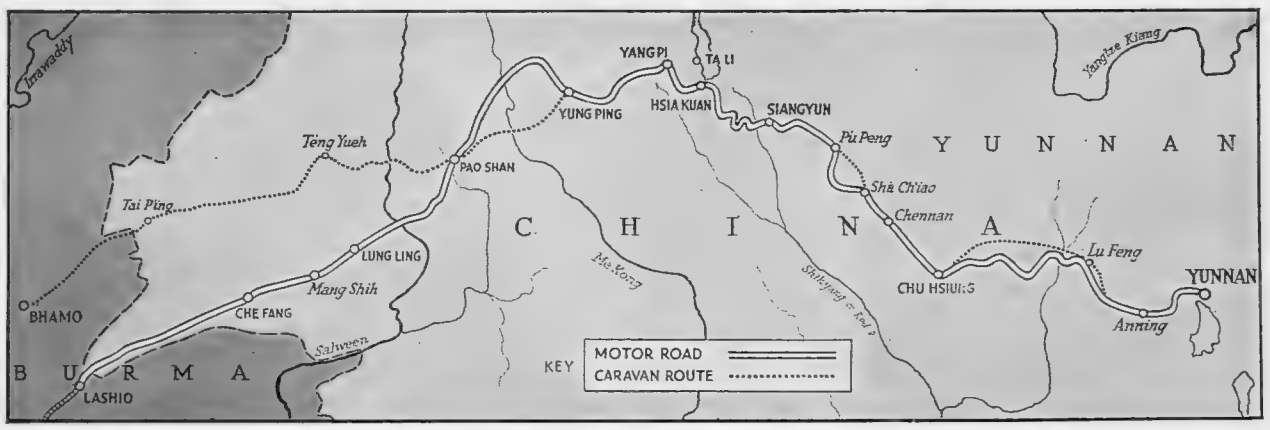
Grouse.—The Government, it seems, does not set its face against shooting. It has shown it by announcing that the grouse's and the pheasant's "annual Bartholomew" will be advanced by a week and a month respectively Grouse walked up in a normal year on August 12 reveal a very big preponderance of cheepers, immature birds which hardly repay as food the expense of killing. Coveys flushed on the 5th will be still more immature, for all grouse-shooters know the progress made by young birds during the first three weeks of August. But no doubt efforts must be made to get the birds in the walking-up stage before the coveys become too wild and wary for any methods but driving. There can be this year very little opportunity for organising drives. The necessary beaters are wanting, many keepers and experienced flankers have been called up. On a big moor a successful day's driving demands weeks of preparation and an army of fifty, young and old, "of all ranks." Such arrangements are impossible this year, even if the "guns" could be collected from their war stations. The grouse season must be a slaughter of the innocents by the innocents. The Eton boys will have a good time and gain two years of experience in a single season. For it is, pathetically, a good year—at last—just like in the last war. We have waited long for another 1915. For older men who may be able to afford the time for a day's shooting it will be but another form of duty. There is little satisfaction in dropping half-grown pheasants in turnips or decimating an immature covey of grouse in rank heather.

J. G.

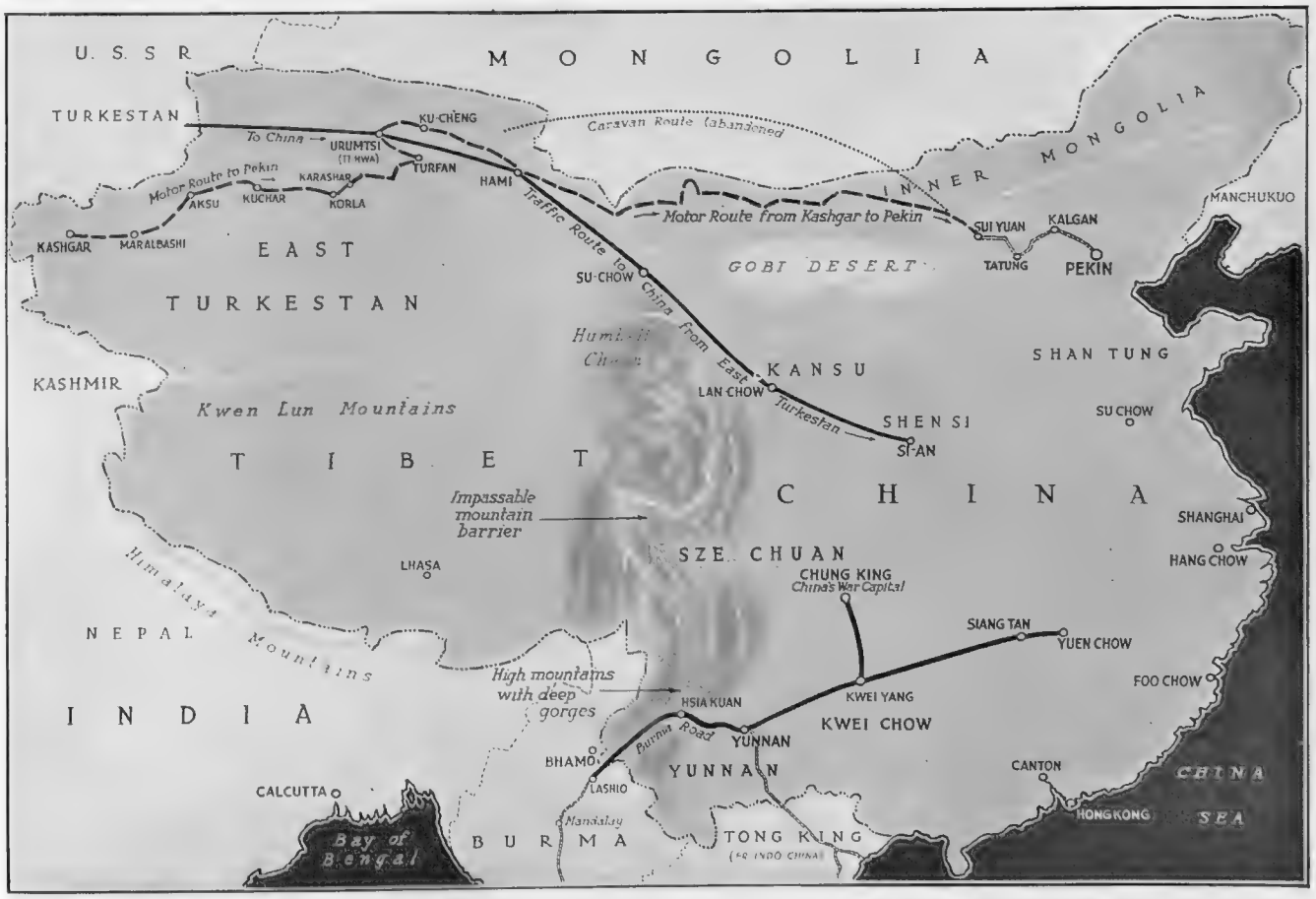
TERRITORIES IN THE NEWS: Threatened Switzerland, and the Fateful Burma Highway

THE MOUNTAIN FACADE OF SWITZERLAND, AS SEEN FROM SOUTHERN GERMANY: There are three or four roadways into Switzerland within the area shown here. To the right of the view is Basle, where in peace-time one used to breakfast before passing on into Switzerland's mountain fastnesses. The first part of the journey was through pretty, fairly open and rolling meadow land with model houses and farms. Then after a plunge through a range of hills one came out into the delightful valley of the Aar. Soon Olten with its picturesque bridge was passed as the train bore away to the Bernese Oberland and other world-famous mountain chains

Switzerland appeared last week to be in a state bordering upon tension. It was officially declared that the country, in the now familiar language of the disturbed neutral, "would defend its territory to the last man." In two directions Switzerland was directly affected last week by Nazi action. It was stated over the German wireless that the German authorities in occupied France were to close the frontier with Switzerland. The German command in the Jura sector had announced that the border "will be hermetically sealed as from Sunday," the announcer said. People living in France but working in Geneva were asked to decide whether they would live in France or Switzerland in future, as there would be no possibility of crossing the border for an indefinite period. The new order followed that issued on Tuesday of last week for closing the German-Swiss frontier. Whether the closing of these frontiers had a bearing on secret preparations or not remains to be seen.



THE BURMA HIGHWAY in detail, from the western border at Lashio through its sinuous track to Yunnan, or more strictly Yunnan-fu (fu signifying the chief city, in this case of Yunnan province). The task of making this road useable for motor lorries has been very great. The dotted line shows the old pack animal route, which is still used for silk and merchandise



THE BACK DOORS INTO CHINA: Attention has been centred on the Burma highway, for it has been along this route that so many munitions of war have recently passed to Yunnan and on to Chung King. There is, however, another route, intermediate between Chung King and the northerly Pekin route. It enters China to the north-west of the new capital. This has been cleared for motor traffic (as shown on the double-page elsewhere in this issue); the problem lies in finding a route southwards to Chung King, and this may only be possible for pack animals. The great mountain barrier is indicated in the centre of the view

The question of war traffic on the Burma–Yunnan highway which came inauspiciously into the forefront of Far Eastern news a short time ago continues to occupy the attention of the foreign ministries concerned. The arrest of British residents of importance in Japan was followed by the detention of certain Japanese in London, Rangoon and Singapore.

The Burma Road, which is dealt with on a double-page in this issue, was the subject recently of a paper by Mr. Patrick Fitzgerald delivered to the Royal Geographical Society earlier in the year. "It is hardly surprising that, in a country which offers such difficulties, communications had remained till modern times in a most primitive state. In all the vast expanse of western China covered by the provinces of Yunnan and Kueichou, from Chung King on the Yangtse to Burma, there was till barely five years ago no road on which any wheeled vehicle could pass. West of K'un Ming none of the inhabitants had ever seen a wheeled vehicle of any kind. The Yunnanese travelled either on the back of their astonishingly nimble and indefatigable little ponies, or on foot. All freight was carried by porters or pack animals, for there are no navigable rivers or streams in Yunnan. The roads, or rather paths, were once paved with heavy slabs of stone, but as repairs were never carried out the paving soon became irregular and broken to the last degree. The Chinese themselves have aptly described these roads in the common saying that they are 'good for ten years and bad for ten thousand.'

"It was military necessity which first induced the building of motor roads in west China."

BERNARD SHAW'S "THE DEVIL'S DISCIPLE" REVIVED AT THE PICCADILLY THEATRE: This brilliant example of Shavian wit is drawing big audiences to the Piccadilly Theatre in the present war-time theatrical boomlet. Robert Donat makes his stage reappearance (after a film absence of four years) with enormous success in a part which might have been written for him. In the group above are seen: (third from left) Milton Rosmer as General Burgoyne, Henry Caine as Major Swindon, Robert Donat as Dick Dudgeon and Rosamund John as Judith Anderson. Mr. Rosmer, in addition to taking part in the play, is also the producer

THE THEATRE BOOM CONTINUES

Last Week's New Plays

Reviewed by

PHILIP PAGE

I HOPE all those very serious people who since the outbreak of war have been wringing their hands and wailing that the London theatre has gone to "demned perdition" because little has been produced beyond flimsy musical shows are now satisfied. For *Thunder Rock*, the metaphysical, political, social-economical, psychical and in some respects, rather lunatical play which has come to the Globe from America and the little neighbourhood Theatre is as formidable a piece of intellectuality as anyone could desire. Let me start off by saying that it is desperately serious, has a few undesirable dramatic qualities, is overwritten, and has been written by a man with a brain, and a good one. It has been rapturously received, and if I cannot enter into all of that rapture I am delighted that this should have been so.

It is as well not to pick overmuch on the minor theatrical liabilities here in view of the abundance of major ones. I do not think a successful journalist, and an American one at that, would ever suffer from escapism and if he did he would not become the solitary keeper of a lighthouse, spending, to no one except during the once-a-month visit of the relief ship and refusing even a raise. In point of fact, solitary lighthouse-keepers do not, I am told, exist; one or more companions must be present so that the light may not cease to function in case of illness.

This man, Charleston, conjures up the captain and some of the passengers of a sailing ship which had been wrecked on that rock ninety years before, i.e. in 1849. Is this a dream? If so, it is amazingly detailed. Is it an experiment of the J. W. Dunne experiment-with-time puzzle? Is it another case of going back into the past, as those two old ladies did at Marie Antoinette's Petit Trianon in that fascinating book *An Adventure*? Whatever happened, or is supposed to have happened, this very haziness, and the spate of words which accompanies it, detract from the value of *Thunder Rock* as a play, whatever else it may set out to be.

Anyway, the motto it preaches, or is intended to preach, is anti-defeatist and anti-escapist; for at the final fall of the curtain Charleston goes back to the 1939 world he has relinquished. How those ghosts induced him to do that by alleged optimistic arguments I could not fathom. They seemed to me a most pessimistic and depressing set.

Mr. Michael Redgrave has championed the play with enthusiasm, and gives a fine performance as Charleston.

"Cottage To Let."—There is nothing metaphysical about this "comedy-thriller," which is the first spy-play of the present war. If those which will inevitably follow it are as good, there will be no complaints. For when once a fashion is set in war-time dramas they come not in single spy-plays but in battalions.

The plot of this one concerns an English scientist who has invented a new and quite marvellous anæsthetic and a Scotch spy who is determined to get hold of it for the Nazis. In order to do this, he comes to live in a cottage on the scientist's estate, haunts the scientist's house, and strives to make himself ingratiating to his friends and family. Anyway, the scientist is doped and, it seems, carried off to a German submarine. But there is, of course, a happy ending.

Mr. Leslie Banks and Mr. Alistair Sim found no difficulty in being the hero and villain respectively. But an outstanding success was that of a small boy, Master George Cole, to whose work as a detective was due the happy ending aforesaid. I would have betted anything against my liking a wise-cracking little horror of fourteen or so, with supreme self-possession and a knack of putting his elders right, which is what George has to be and to do in this play. Yet I am all for George, who is certainly a more than promising actorlet. The exquisite comedy touches of Miss Gillian Lind must not be forgotten.

"Margin for Error."—Miss Clare Boothe (Mrs. Henry Luce) had a big success in New York and in London with *The Women* and an almost equal success in the former city with this play now at the Apollo. Whether that success will be repeated here I rather doubt. Mayor La Guardia's joke of putting Jewish policemen to watch over the New York Nazis was a subtle one and deserved its laughs. To London audiences the point is not so keen and as the basis of a whole play hardly sufficient. Miss Boothe has a Nazi consul murdered in the first act and the rest of the play is devoted to the efforts of a Jew "cop," brilliantly played by Mr. Hartley Power, to find the murderer. The whole thing is played in a spirit of hilarious merriment. But there is not quite enough butter spread on the bread.

"THUNDER ROCK" AT THE GLOBE THEATRE: Charleston (Michael Redgrave) is a journalist who has left the world and its problems to live in Thunder Rock lighthouse in the middle of Lake Michigan. He peoples it with creations of his own brain, his conception of the people who lost their lives in 1849 in a shipwreck where the lighthouse now stands. One of these, Melanie (Miss Fredda Brilliant), daughter of a Viennese doctor, brings him news as to how another of his brain characters is faring in child-birth

"COTTAGE TO LET" AT WYNDHAM'S THEATRE: Leslie Banks, Fred Groves and Alfred Atkins in a scene in the hut on the edge of a cliff. Mr. Banks plays the part of the inventor of a new drug coveted by Germany; an attempt is made to kidnap him in a U-boat, but the tables are turned and the submarine is destroyed

"Of course I'll write —I've got a Swan!"

The man with a Swan Pen in his pocket will write —and write often. For a Swan takes the effort out of letter writing. It is so wonderfully smooth, so swift, so strong—it flows along the paper as easily as thought itself. You'll always be glad of the happy inspiration that prompted your gift of a Swan.

Swan Pens

AT PEACE-TIME PRICES: Leverless Swans, 17/6 to 42/-. Visofil Swans, 25/-. Lever-filling Swans from 10/6. Blackbird Pens, 7/6 (Ladies' size, 8/6). Fyne-Poynt Pencils from 5/-. Of all Stationers and Jewellers.

Made throughout in the British Isles by Mabie, Todd & Co., Ltd. Branches: Swan House, 133/135 Oxford Street, W.1, and 79 High Holborn, W.C.1, London; 3 Exchange Street, Manchester. Head Office temporarily at 26 Donnington Square, Newbury, Berks.

Resoluteness

What better symbol of cheery tenacity than the British sailor? A friendly reminder of that "National" Cigarette which, through the pleasure and contentment it brings to thousands is helping in some measure to keep strong that national asset, resolution. Now as always, Player's Navy Cut stand supreme for dependable quality.

KEEP THAT HAPPY EXPRESSION

Player's Please

MEDIUM OR MILD · PLAIN OR CORK-TIPS · 10 for 9d. 20 for 1/5½

NCC 532G

Britain's vast war effort calls for weapons of every calibre. National War Bonds are the heavy guns of our war finance. They provide the means by which private individuals, the Directors of business concerns, Executors and Trustees can help the Nation to victory.

If you have £100 or more, buy National War Bonds. If you are a Director or Trustee, use your influence to sustain and increase the flow of investment.

Buy National War Bonds

1945-47

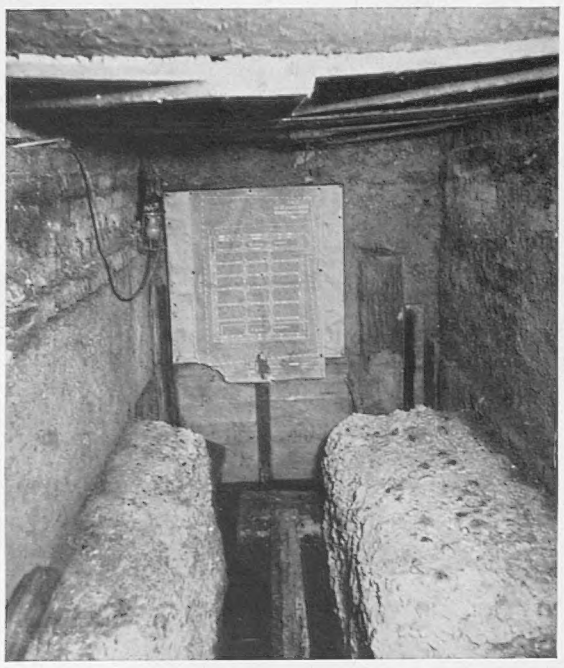
2½%—Unlimited Issue

—Continuously "on tap"

A full Trustee Security—Price of issue £100 per cent—Subscriptions of £100 or multiples of £100 will be received until further notice—Interest accrues from date of purchase—Prospectus and application forms obtainable from Banks or Stockbrokers.

Issued by The National Savings Committee, London.

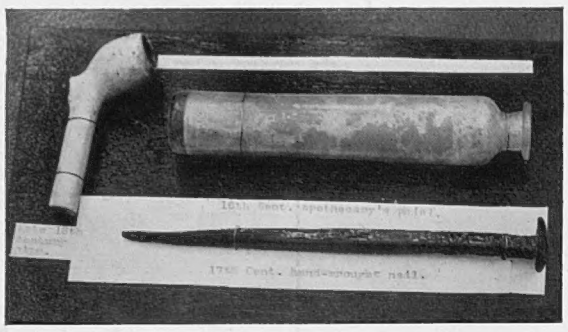
KENSINGTON BARRACKS ON A ROMAN SITE: THE DISCOVERIES PICTURED



THE ROMAN WORK BENEATH KENSINGTON BARRACKS: This is how the remains appear to-day; behind on the facing wall is a plan of the Roman masonry presumed to be hidden beneath the barracks

It is not generally known that underneath Kensington Barracks there lies a mass of ancient masonry believed to be Roman, of which only a limited exploration has been possible. Two intractable masses of the Roman work were unearthed and have been preserved so that access to them is possible. A recent visit by a SPHERE photographer shows their present appearance. Owing to the nature of the site, it long remained unoccupied by buildings and was used chiefly as a market garden. The reason for this use of the ground only became apparent when the interest of an acting company-sergeant-major of the R.A.S.C., with a strong archæological bent, became interested in the matter. By a skilful use of the divining rod he was able to trace out the plan of the assumed Roman work which has been accepted, in all probability as a Roman site. Its rectilinear form is shown in the plan in the first picture given here.

The way in which attention was drawn to the existence of the Roman work makes a very pretty piece of archæological deduction. A Tudor brick conduit house once stood beyond the north-east corner of the barracks, its site being subsequently marked by a Victorian replica.

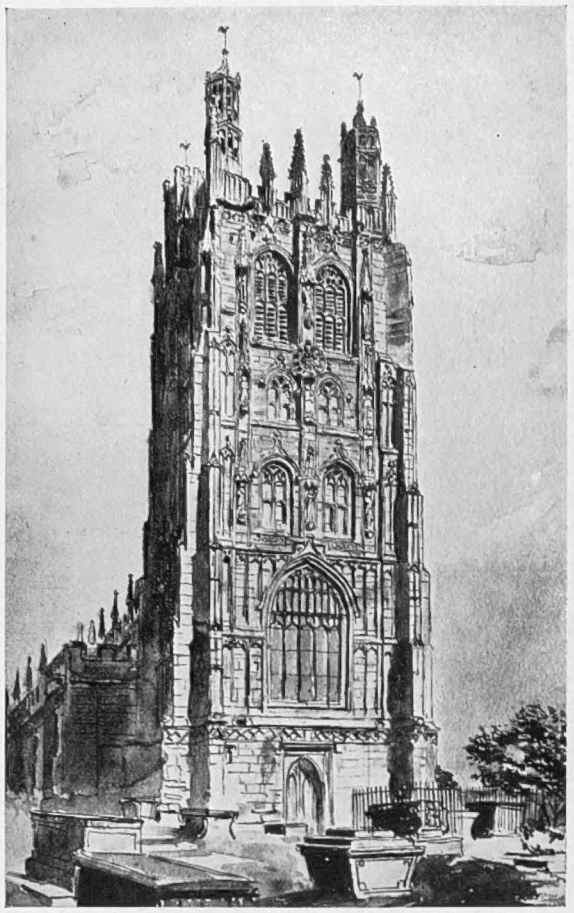


A SIXTEENTH-CENTURY APOTHECARY'S PHIAL, a seventeenth-century wrought nail, and a late-sixteenth-century pipe discovered during the excavation

This was part of a system to supply King Henry VIII's house at Chelsea; a portion of this conduit was revealed when a Jubilee memorial was being removed at the foot of Church Street. How, it was argued, did the culvert pass the barracks site? It proceeded in the right direction, but then made a detour as if meeting some obstacle. The obstruction proved to be the obstinate Roman work referred to above.

A HENRY VIII SHILLING AND ON RIGHT A HALF GROAT bearing Wolsey's initials also discovered. When the Tudor culvert was built to convey water to King Henry's house at Chelsea it had to bend out of its course to avoid the Roman masonry mentioned above

WHERE ELIHU YALE LIES BURIED: BY THE TOWER OF WREXHAM CHURCH



THE BEAUTIFUL TOWER OF WREXHAM PARISH CHURCH: Here lies the tomb of the founder of Yale University

A correspondent sends THE SPHERE this interesting drawing of the beautiful tower of Wrexham Church, generally held to have suggested the design of the Victoria Tower of the Houses of Parliament. The church has a particular interest for Americans, for at the foot of the tower lies the tomb of Elihu Yale, founder of the famous American University.

Pain after Meals

Do you find you cannot eat a thing without pain and discomfort afterwards? That is because acid turns your food tough and you cannot digest it. 'Milk of Magnesia' Tablets relieve the acidity at once and your stomach starts digesting your food right away and finishes its work with perfect ease.

Your indigestion has vanished and need never return. Get a box of Tablets now and prove this at your next meal.

Neat flat boxes for the pocket, 6d. & 1/-

Also family sizes, 2/- and 3/6

Obtainable everywhere.

'MILK OF MAGNESIA' BRAND TABLETS

'Milk of Magnesia' is the trade mark of Phillips' preparation of Magnesia

THE SPHERE TRAVEL BUREAU—Continued from page iii of cover.

SIDMOUTH KNOWLE HOTEL

A FINE COUNTRY HOTEL WITH EVERY POSSIBLE COMFORT

NO AIR RAID ALARMS PERFECT QUIETNESS

The Old House Hotel - - Windsor - -

A Beautifully Furnished Period House for those who would live beyond the limits of London Town. *Telephone: Windsor 1354*

Every Modern Comfort in an Old World Setting

THE SPHERE IN WARTIME

OWING to the paper shortage it is essential to place a standing order with your newsagent to make sure of getting your copy of THE SPHERE each week.

By a Paper Control Order, the output of British paper is drastically restricted and all publications are compelled to exercise the strictest economy and in future no periodicals can now be stocked for casual sale. It is therefore imperative to place an order for your copy each week.

Those desiring to have THE SPHERE sent to friends in neutral countries should send a subscription to The Publisher, Illustrated Newspapers, Ltd., 32-34, St. Bride Street, London, E.C.4. Subscription rates are given hereunder :—

	Twelve months, including Xmas Number	Six months, including Xmas Number	Six months, no extras	Three months, no extras
INLAND ...	£3 3s. 0d.	£1 12s. 9d.	£1 10s. 6d.	15s. 3d.
CANADA ...	£3 0s. 8d.	£1 11s. 5d.	£1 9s. 3d.	14s. 9d.
ELSEWHERE ABROAD	£3 5s. 6d.	£1 14s. 8d.	£1 11s. 8d.	15s. 10d.

The above terms are inclusive of postage.

ON SALE EVERY FRIDAY, PRICE 1/-

VANTELLA shirts and VAN HEUSEN collars put you smartly at your ease.

The Friend that never fails

Friend of the penniless, the young, the old, the sick, the friendless, the fatherless . . . The friend quietly waiting everywhere to help and cheer the unfortunate . . . The Salvation Army.

Please remember the work it is doing — and help!

Gifts and Enquiries welcomed by . . .

GENERAL GEORGE L. CARPENTER,
101, Queen Victoria Street, London, E.C. 4

THE SALVATION ARMY

PRINTED IN ENGLAND by EYRE & SPOTTISWOODE LIMITED, *His Majesty's Printers*, at East Harding Street, London, E.C.4, and Published Weekly by ILLUSTRATED NEWSPAPERS, LTD., 32-34, St. Bride Street, London, E.C.4.—*August* 10, 1940. Entered as Second-class Matter at the New York (N.Y.) Post Office, 1903.

In Quest of Good Hotels

By ASHLEY COURTENAY

THE ever-present petrol problem must not be allowed to rob us of holidays, for these are more of a necessity than a luxury in these tense times. I don't know how many put into practice the theory of five minutes complete relaxation towards the end of a busy day, when one has not the strength to go on to do an evening of duty of some kind. I only know that those who have tried it are unanimous in their agreement upon its wonderful tonic effect. In the same way a holiday, no matter how short, enables one to take up work afresh and put in twice the energy you would be able to muster if you kept going all the time. And such a holiday nowadays must be away from wars and rumours of wars as far as that is possible.

My advice is that you find a comparatively quiet area, deep in the country, and make your headquarters at some point from which you can easily reach neighbouring beauty spots, by coach or even on foot. There is a great deal to be said for walking in lovely countryside; you can set your own pace, you can go where you please, and even if you are one of a party there is nothing to stop you from striking out on a line of your own, whereas when you are in a car where the driver goes, you all go!

There is no better part of England for explorations afoot than the Lakes, provided you have a certain amount of energy, for it is no use pretending that it is smooth and simple going. On the other hand, there are many beauty spots within easy reach of one another, and one headquarters serves you well for several points of the compass. Take, for instance, Grasmere. While a number of you would probably make willing pilgrimage to this particular village to see Wordsworth's cottage alone, there are in addition numerous views to be enjoyed from the windows of any hotel you happen to choose. If, for instance, you stay at the Swan, where Mrs. Sandilands will see that you are comfortable, well fed and thoroughly well looked after, it doesn't matter which way your bedroom may face, you will be looking at a near mountain, sometimes discreetly veiled in silver-blue mist, sometimes emerging green-bronze in the sun, sometimes dappled with shadow, always beautiful.

An old, two-storied white-washed building on the left of the road leading to Grasmere from Keswick, the Swan has a welcoming air. Its glass front door opens immediately into a comfortably furnished hall, shallow stairs disappearing discreetly into the background as though saying, "Come and see what else we can show you." Bedrooms are compact and comfortable, and the dining-room with its many windows looks invitingly mountainward. There are other attractions connected with the dining-room, and these have their origin in the Home Farm, which supplies a good deal of the produce offered to guests.

Another hotel in this picturesque district, standing back from the main road in its own gardens, is the Glen Rothay Hotel overlooking Rydal Water, wooded hills rising behind it to protect it from the wind. Joining the hotel grounds at the back of the house is some property that belonged to Wordsworth in his lifetime, including the house in which he spent his latter years, and Dora's Field, which in the spring is a golden glory of daffodils, the flowers he made famous in one of his best known poems.

The garden of Glen Rothay is screened from the road by an old stone wall, but a second main entrance to the house itself is provided by a doorway which opens on to the road direct from an attractively panelled sitting-room in the oldest part of the building. Friendliness is in the atmosphere here, upon which Mrs. Hendy's smile as she greets you, sets the seal.

To reach Grasmere village proper you leave the main road and cross a bridge to be in a position to explore the clusters of grey stone houses and twisted streets. Your wanderings in this direction will bring you to the gates of Dale Lodge, standing well back in its own grounds. A rambling garden here, for children, and a comfortable house that offers you good service and good meals, despite the war-time restrictions on the larder. As a "kicking-off point" for Lakeland explorations you would find Grasmere hard to beat, for not only is there plenty of climbing for those who like to indulge in it, but all the other lakes are within easy reach, and, at the time of writing at any rate, coach services are still running tours to all the famous places in the neighbourhood. Although it may sound rather inaccessible from the South or Midlands, this is not really the case. There are excellent trains to Windermere, and these can be met, as also can the steamers at Waterhead, Ambleside, only a few miles away.

If, instead of turning in the Windermere direction you take the road that leads to Keswick from Grasmere, you will find that it brings you to Thirlmere, and to Easton's King's Head Hotel. As far as accommodation goes, this hotel is small, and the few rooms that are normally available have probably been snapped up already by some far-seeing people for the duration, but it ought to be visited as a building of interest alone. Though it is a dangerous habit if you are at the wheel of a car, you will probably be paying more attention to the surrounding scenery than the road, until a curve in it brings you to the King's Head. This low, white-washed, sixteenth-century building, with its grey lichened roof stands alone at the foot of Hellvellyn, looking across Thirlmere, to Armboth Fells. The ceilings of the cosy sitting-room and white-walled dining-room are scored with old oak beams, and there is an even more ancient specimen of these in the bar.

More fascinating still, I found in the outer wall an old letter box, the receiving end being right inside the tap-room. There would be no doubt in olden days, when this collecting box served the hamlet, about the corner seat in the bar belonging to the postman.

Chickens, eggs, vegetables of all kinds and milk come from Miss Easton's own farm; all the cakes and even the bread are made on the premises, so if you cannot manage to stay there, I would suggest it as an excellent rendezvous for a meal.

Mr. Ashley Courtenay is always pleased to advise "Sphere" readers of hotels, both large and small, known to him personally. Letters, accompanied by a 2½d. stamp for reply, should be addressed to him, c/o the Editor, THE SPHERE, *32-34, St. Bride Street, London, E.C.4. Personal and telephone inquiries, however, cannot be accepted.*

THE SHAFTESBURY HOMES AND "ARETHUSA" TRAINING SHIP

At the 97th Annual Statutory Notice of the above Incorporated Society, it was reported that 430 children had been discharged during 1939, 128 of these going to the Royal Navy and 30 to the Merchant Navy. Boys from the Homes and Training Ship were serving in all branches of H.M. Forces, many with distinction. During the latter part of the year there had been a falling off in subscriptions and the year had ended with a deficit of £3,502. The Society had been put to great expense in providing A.R.P. for the children. The *Arethusa* had been evacuated to excellent quarters for training purposes in the West Country. Please send a donation to the Headquarters of the Society at 164, Shaftesbury Avenue, London, W.C.2, to help pay for these war-time expenses. All donations will be gratefully acknowledged.

CONDITIONS OF SALE AND SUPPLY

This periodical is sold subject to the following conditions, namely, that it shall not, without the written consent of the publishers first given, be lent, resold, hired out or otherwise disposed of by way of Trade except at the full retail price of 1s.; and that it shall not be lent, resold, hired out or otherwise disposed of in a mutilated condition or in any unauthorised cover by way of Trade; or affixed to or as a part of any publication or advertising, literary or pictorial matter whatsoever.

Safe Sanctuary Here, in this unspoilt corner of South Devon where sea, sun, and soft air combine to bring you peace, is this first-class hotel directly overlooking the water. Good Golf. Bridge. Private bathrooms and Suites.

Terms from 5 Gns. a week

ROSEMULLION HOTEL
BUDLEIGH SALTERTON, SOUTH DEVON

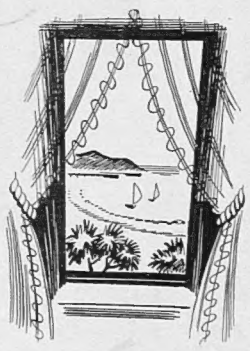
CREST CROWBOROUGH 394-5 SUSSEX

From 4½ to 9 guineas a week.
Special reductions for long stays as well as special week-end rates for the Services.

PINE SCENTED SUMMER
Spend it in the heart of the country, yet only 75 minutes from London. Enjoy the best of good fare in lovely surroundings. All-weather tennis. Golf.

HADLEY WOOD, near Barnet, Herts
WEST LODGE PARK HOTEL
In the heart of the country, yet but half an hour from Piccadilly Circus to Cockfosters. A country house of character and charm. Sixty acres of ground and not a roof in sight. Golf course at the drive gates.
Under the personal supervision of Mr. E. VICTOR, late of Whitehall Court. *Tel.: Barnet 0692*

FORTFIELD HOTEL SIDMOUTH S. DEVON
Standing in its own grounds, overlooking the sea.
Self-contained Suites. Finely appointed Public Rooms. Passenger Lift and every modern convenience. H. & C. in all rooms. Fully Licensed. Lock-up Garages.
For Bookings or Brochure, write Resident Manager, Mr. E. G. Russell, Fortfield Hotel, Sidmouth, S. Devon.
Telegrams, Fortfield, Sidmouth Telephone, Sidmouth 39



Peace . . . . and Perfection
An Hotel for a holiday of quiet and content. Every bedroom has a perfect view over Tor Bay. 50 rooms with every luxury. Private suites. Private bathrooms.
A cuisine far removed from the ordinary.
All under the personal direction of Mr. D. Tschumy, born and trained in Switzerland.
THE HEADLAND HOTEL TORQUAY
A very first-class unlicensed hotel run in connection with the Grand, where every facility for recreation is free.
Telephone: Torquay 2161

AND HERE IS PEACE . . .
A sheltered park of 60 acres. A sun-trap 400 feet up. An hospitable and first-class hotel for Summer. London under an hour by train. Sporting golf course in the grounds.
THE SPA HOTEL ROYAL TUNBRIDGE WELLS
Write for tariff-booklet entitled "And here is peace." Telephone: Tunbridge Wells 1911

COOMBE HOUSE HOTEL, NR. SHAFTESBURY, DORSET
Away from the atmosphere of war. Situation healthy and beautiful. Every comfort. Trains met Semley by appointment.
Tel.: Shaftesbury 130
Terms from **4 gns.** for extended stay.

HARLEYFORD MANOR, NR. MARLOW
This lovely old country house on a private reach of the Thames has an air of mellow serenity. Every modern comfort in old-world surroundings makes it the site ideal for those in search of peace.
Telephone: Hurley 239
Terms: **5 Gns.**

KENYA HOUSE *Boar's Hill* **OXFORD**
A Private Guest House standing high but sheltered, five miles out of Oxford. A large garden looking on to open country with lovely views. Tel.: 85247.

Roundabout Hotel, STORRINGTON, Nr. Pulborough, Sussex
GOOD GOLF. GOOD AIR. GOOD FOOD. GOOD BEDS. . . . AND PEACE.
Now under the personal direction of Mrs. A. K. and Mr. A. G. Kempster (formerly of the Stafford Hotel, St. James's, S.W.1). *'Phone: West Chiltington 123*

CLEMATIS COTTAGE HOTEL, WASHINGTON, nr. WORTHING
A haven of content and character for a week-end or longer in the fold of the Sussex downs. Noted in particular for its cooking, and its home-made cakes, as well as for the discerning people who repeatedly stay there. Easy access to the West Sussex Golf Club at Pulborough.
Inclusive Terms from **3½ Gns.**

Good work—good whisky

JOHNNIE WALKER

Born 1820—still going strong

PRINTED IN ENGLAND by EYRE & SPOTTISWOODE LIMITED, *His Majesty's Printers*, at East Harding Street, London, E.C.4, and Published Weekly by ILLUSTRATED NEWSPAPERS, LTD., 32-34, St. Bride Street, London, E.C.4.—*August* 10, 1940. Entered as Second-class Matter at the New York (N.Y.) Post Office, 1903.